97th Congress
2d Session } COMMITTEE PRINT

INJURIES AND DAMAGES FROM HAZARDOUS WASTES—ANALYSIS AND IMPROVEMENT OF LEGAL REMEDIES

A REPORT TO CONGRESS IN COMPLIANCE WITH SECTION 301(e) OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (P.L. 96-510) BY THE "SUPERFUND SECTION 301(e) STUDY GROUP"

PART 2
APPENDICES

SERIAL NO. 97-12

AUGUST 1982

Printed for the use of the Senate Committee
on Environment and Public Works

U.S. GOVERNMENT PRINTING OFFICE
97-572 O WASHINGTON : 1982

S322-8

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Reporter's Introduction to Appendices

The following Appendices are memoranda which served as part of the basic legal research for the Final Report. Many of them were based on research by the Legislative Drafting Research Fund's research assistants.

Most of the memoranda were originally prepared in 1981. They have been reviewed, and where necessary, revised prior to this submission. In a rapidly changing field of law, some very recent changes may not have been reflected, but these memoranda seek to present an accurate statement of the law in the areas covered.

Frank P. Grad

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A.

DIMENSIONS OF THE HAZARDOUS WASTE PROBLEM

TO: Superfund Study Group

FROM: Frank P. Grad, Reporter

Date: December 11, 1981

RE: Dimensions of the Hazardous Waste Problem

The dimensions of the hazardous waste problem are not well defined. No one can accurately determine the number of hazardous waste sites that exist nor the number of people who have been or could be injured by exposure to wastes escaping from these sites. This memorandum focuses on the problem of quantifying injury to human health, but environmental damage is also of major significance and the questions regarding ecological damage also complex.

Despite this uncertainty, other facts provide justification for concern over the health consequences of exposure to hazardous wastes. These include: knowledge of the large amount of industrial and other wastes that have been produced in past years, knowledge that a significant portion of these wastes were hazardous, and knowledge that most of the hazardous wastes were not disposed of properly. When considered with evidence that exposure to hazardous waste can cause irreparable personal injury, these facts provide ample justification for concern. Studies in regard to environmental problems such as air pollution, occupational health, and pesticides have already documented serious risks of injury from hazardous substances.

Additional justification for concern about personal injury caused by exposure to hazardous wastes arises from the process of locating, evaluating, and eliminating dump sites, since this process will lead to additional exposures.

This memorandum will discuss the uncertainty underlying any attempt to quantify the hazardous waste problem. First, estimates of the number of sites that contain hazardous wastes will be stated along with estimates of the number of sites that pose a serious health risk. The methodologies used in obtaining these estimates will be discussed and used as an illustration of the limits inherent in any attempt to catalogue all waste sites and the health threats posed by such sites. Finally, the facts that justify concern about the adverse health effects of exposure to hazardous waste will be outlined and supported.

Estimates of the number of sites that contain hazardous waste range from 50,000[1] to 4,802[2]. Corresponding estimates of the number of sites that may pose a serious health risk range from 2,000[3] to 431.[4]

As the wide discrepancy in these numbers indicates, these estimates are subject to serious doubt. In each case the methodology used to calculate the number of sites could not yield an accurate result. The higher set of numbers are taken from a study done for EPA by Fred C. Hurt Associates.[5] This study was apparently based on reports from EPA regional offices, some of which simply reported that all landfills may contain hazardous waste while others omitted sites that could pose serious risks.[6] The study was completed in a short period of time and the final numbers were, apparently, extrapolated from only 232 cases (only 24 of which were actually visited) using information on the amount of hazardous waste produced annually.[7]

The lower set of numbers was produced by the Chemical Manufacturer's Association (CMA). A phone survey of state environmental agencies conducted by CMA provided the basis for these estimates. However, it is uncertain whether these numbers are from a preliminary survey or final data[8] and there is no indication of how the state agencies involved determined the numbers reported to the CMA.[9]

Although these estimates are flawed, they have been used by policy makers as a basis for debating how best to approach clean-up and proper disposal of hazardous waste.[10] Since it is unlikely that better estimates will be available in the near future,[11] it is important that policy makers realize, first, that these and any other numbers are unreliable and, second, that despite these inherent limits, concern for public health is justified.[12] The risks are apparent from consideration of the factors that also make it extremely difficult to determine the number of dump sites that exist and in turn, whether the sites that are located pose a threat to human health.

The first problem in attempting to determine the number of sites that contain hazardous wastes exists because of the scientific difficulties in defining the term "hazardous waste."[13] In addition to using animals to test potentially toxic waste products by exposing them to relatively high levels of the substance, studies of humans that have been exposed to particular substances can be used to develop statistical evidence of toxicity.[14] The problem with using such data to evaluate any particular substance is complicated by the fact that the adverse health effects caused by exposure to certain substances are only apparent after a 15 to 20 year latency period. Exposure to a variety of substances during the latency period makes it difficult to establish causal links to any one substance.[15] Statistical evidence from any one particular dump may be inconclusive also, if only a few people are exposed.[16]

In the regulatory context, problems in assessing health effects and linking these effects to a waste product is often only half the battle. Once it is known that exposure to a particular waste can pose adverse health effects, a judgment must be made about the likelihood that these effects will occur and the benefits inherent in using (or not cleaning-up) the particular product. Once it is determined that a substance is or may be hazardous in the scientific sense, it then must be determined if regulation is called for. At this stage, policymakers balance various factors. That is, an evaluation of the health risk posed by the substance, including such factors as the nature of the injury caused by exposure, and the number of people who could be exposed to the substance, must be weighed against the social benefits gained from manufacture, use and disposal of the substance.[17]

The decision to compensate an individual who is injured by exposure to a substance need not be the same as the decision to regulate that substance (in fact, it may take the place of a decision to regulate). It is important to remember why the balance is made in the regulatory context. If a substance is not included on a list of hazardous substances for one particular regulatory scheme, it does not mean that the health effects caused by exposure to the substance disappear. As such, policy makers who are trying to quantify the disease burden posed by hazardous waste should consider a wider range of substances than policy makers concerned only with regulating those substances. The definition of "hazardous waste" used in assessing the scope of the hazardous waste problem should not be limited, then, by the definition of hazardous waste in any other regulatory scheme.

Another consideration that may be included in the label hazardous waste site is whether humans are likely to be exposed to the substances in the site. A hazardous waste dump site may be one that contains substances that can cause injury and that are likely to escape from the site and injure humans. As such, the word hazardous may be used to describe the site, not just its contents.[18]

The problems in defining the word "hazardous" as it is used by those providing statistics on the dangers posed by hazardous wastes illustrate the problems in obtaining a quantitative assessment of the hazardous waste problem. Focusing on hazardous waste dump sites, (not all waste material that poses a health risk) three steps must be completed to quantify the problem. First, dump sites must be located. Second, a determination must be made of the contents of the particular site. Finally, the waste site and surrounding area must be examined to determine if wastes can escape from the site, leading to human exposure.[19]

Locating dump sites is the first step in determining the magnitude of the hazardous waste problem. Despite recent concern over hazardous wastes, however, these sites are still difficult to locate. Many sites have long been abandoned and there are few records dating back to the time of abandonment. These problems were illustrated in a survey done by the Subcommittee on Oversight and Investigations of the House Committee on Interstate and Foreign Commerce.[20] After surveying the waste disposal practices of the 53 largest chemical companies, the subcommittee found that on the average, most company records of waste disposal only went back as far as 1968. To achieve its goal of obtaining data back to 1950, the subcommittee had to rely on employee recollection.[21] As a result of such inadequate records, some dumps may only be discovered by accident, unearthed by developers or others seeking to use the land the dump sits under.[22] Some dumps may never be discovered.[23]

Once a site is located, an analysis must be done to determine what the site contains. Problems arise, first in sampling material from dump sites and then in analyzing the sample to determine what chemicals are in the site.

The sampling problem exists mainly because only a small, finite number of samples can be taken. The sampling process may pose a risk in and of itself as it causes the release of materials from the site. As a result, current practice is to collect no more than ten samples from any site.[24] This necessarily limits the ability to determine exactly what is contained in any site. Further limits may be imposed by the nature of the site. As a study committee from the Department of Health, Education and Welfare noted:

> Toxic chemicals may be purposely put in drums. However, there are no sampling methods for contents of drums or materials in soil or water or other contaminated media that will accurately reflect the contents of unsampled areas or portions of the sample.[25]

This means that even if many samples are taken, all of which fail to yield hazardous substances, there is no assurance that the particular site is not a dangerous one.

Once samples are taken, the next problem is an analysis of the sample. Here, again, limits exist on the ability to fully determine what chemicals are in the site. The method used typically, mass spectroscopy, does not yield useful results for many chemicals. Also, even if useful spectra are produced, they may not match any of those catalogued since waste may consist of byproduct chemicals or chemicals that have undergone changes after being dumped.[26]

Assuming that a site has been located and the substances in it analyzed and found to be potentially toxic, the next step is to determine whether individuals are or could be exposed to material escaping from the dump causing injury to those so exposed. Several methods of exposure must be considered, including "direct contact, fire and explosion, groundwater contamination via leachate, surface water contamination via runoff or overflow, air pollution via open burning, evaporation and wind erosion and poison via the food chain."[27] This is likely to be the easiest step in the process.

Despite the limits in our ability to quantify the health problem caused by wastes, other facts justify concern over the hazardous waste problem and suggest that its magnitude may be substantial. These are, first, knowledge of waste sites that have been discovered and evaluated, knowledge of the amount and type of waste produced in the past, and knowledge that this waste was not disposed of in an environmentally sound manner. Additionally, incidents like Love Canal indicate that serious, if not irreparable injury, may be caused by exposure to hazardous waste.

Of the dump sites that have been evaluated, 114 are considered dangerous enough to be included on EPA's first list of dumps targeted for clean-up under the superfund law.[28] These dumps were selected from a list of 282 sites submitted to EPA by 39 states. There are, then, at least 114 sites dangerous enough to be considered for clean-up funds under the superfund law.[29]

In addition to these sites that have been located and evaluated, other data indicate that many other hazardous waste dump sites could exist. EPA estimates indicate that about 4 billion tons of solid waste are produced each year. Of this, 33 to 44 million tons are thought to be hazardous. Of this waste, 50% is disposed of in unlined surface lagoons, 30% is in non-secure landfills, 15% is spread on roads, dumped in sewers or incinerated, leaving only 10% that is disposed of properly.[30] Even after the passage of the Recource Conservation Recovery Act, disposal of this waste has not been effectively regulated, even when it is known that such waste is highly toxic.[31] In addition, since wastes that can cause injury in humans have been produced since before the start of the Industrial Revolution, and it is known that these wastes were typically not disposed of in an environmentally sound manner, it is possible that many waste disposal sites exist long buried and forgotten.[32] As a result, it is likely that public identification of a significant problem is at an early stage.[33]

The significance of the health problem seems even greater when the types of disease that can be caused by exposure to hazardous wastes are considered. Typically, conditions that can be associated with chemicals include cancer, birth defects and other genetically linked injury.[34] These conditions are often incurable and lead only to large medical bills and death.

Despite many uncertainties, then, several factors support concern over the public health problems caused by hazardous waste. While definitive figures do not exist for the number of waste sites that pose a threat to human health, or for the number of people who have been or may be exposed to hazardous products escaping from these sites, knowledge that a large amount of potentially hazardous waste has been generated, that a great percentage of this has not been disposed of safely and that serious health consequences can be linked to exposure to hazardous waste suggests that "the potential exists ... for more disasters like Love Canal."[35]

Footnotes

*This memorandum is based on research by Dennis Toft, Columbia '82, research assistant, L.D.R.F.

1. This figure comes from a study commissioned by EPA, Fred C. Hurt Associates, Preliminary Assessment of Clean-up Costs for National Hazardous Waste Problems (E.P.A. Contract No. 68-01-5063, 1979). Although that report was not available to this author as of the date of this writing, it has been frequently cited by other authorities. House Comm. on Interstate and Foreign Commerce, Comprehensive Environmental Response, Compensation and Liability Act of 1980, H.R. Rep. No. 1016(I), 96th Cong., 2d Sess. 18 (1980) _reprinted in_ [1980] U.S. Code Cong. Ad. News § 120, 6120. [hereinafter cited as House Superfund Report]; Subcommittee on Oversight of Government, Senate Comm. on Governmental Affairs, 96th Cong., 2d Sess., Rèport on Hazardous Waste Management and Implementation of the Resource Conservation and Recovery Act I (Comm. Print 1980); Fisher, _The Toxic Waste Dump Problem and a Suggested Insurance Program_, 8 B.C. Envt'l.Aff.L. Rev. 421, 423 (1980).

2. This figure is taken from a survey of state environmental authorities done by the Chemical Manufacturers Association (CMA). 10 Envir. Rep. (BWA) 2159 (1980). House Superfund Report, _supra_ note 1, at 71. (dissenting views of Congressmen Stockman and Loeffler).

3. _See_ note 1 _supra_.

4. _See_ note 2 _supra_.

5. The study actually reported a range of estimates, 30,000 to 50,000 total sites with 1,200 to 2,000 posing serious health risk. House Superfund Report, _supra_ note 1, at 18.

6. Fisher, _supra_ note 1, at 424.

7. Hazardous Waste Disposal: Hearings Before the Subcommittee on Oversight and Investigation of the House Comm. on Interstate and Foreign Commerce, 96th Cong., 1st Sess., 1289-90 (1979) (Statement of Henry Eschwege, General Accounting Office). House Superfund Report, _supra_ note 1, at 70. (dissenting views of Congressmen Stockmen and Loeffler).

8. In the Environmental Reporter, it seems fairly clear that these numbers are preliminary only based on full or partial reports from 33 states. 10 Envir. Rep. (BNA) 2152 (1980). However, in the House Superfund Report, Congressmen Stockmen and Loeffler seem to treat them as final figures and argue that they show that there is no chance of a "latent public health and environmental catastrophe" caused by release of hazardous waste. House Superfund Report, _supra_ note 1, at 71. (dissenting views of Congressmen Stockman and Loeffler).

9. _See_ 10 Envir. Rept. 2152 (1980).

10. _See_ notes 1-8 and accompanying text _supra_.

11. Although the Superfund law requires the President to include methods for discerning, investigating and evaluating hazardous waste sites in revisions to the National Contingency Plan for removal of oil and hazardous substances

within 180 days of enactment, Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§ 9601-9657, at § 9605 (1981 Supp.), it is not likely that this could be accomplished even after several years. See notes 31 to 33 and accompanying text infra. As a result, those planning any type of compensation scheme will be operating without accurate figures on the potential cost, since the number of people injured is unknown.

12. See notes 34 to 36 and accompanying text infra.

13. Statutes typically define a hazardous substance in terms of the danger posed to public health or welfare, or to the environment when the substance is released into the environment. In most cases, the danger posed must be substantial. Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9602 (1981 Supp.); Federal Water Pollution Control Act, §311 33 U.S.C. § 476 (1976); Resource Conservation Recovery Act § 1004(5), 42 U.S.C. § 6901, (1976).

14. Office of Technology Assessment, Cancer Testing Technology and Saccharin, at 11-15 (1977).

15. Senkan and Stauffer, What to Do With Hazardous Waste, Technology Review, Nov./Dec. 1981, 34, 40. Actually, epidemiological studies may be the only way to accurately determine the adverse health effects caused by a particular dump site. Although a particular substance may not be toxic on its own, it may become so in the presence of other substances found in a particular site. Thus, epidemiological studies can show that a particular site poses a risk, even when an assessment of the substances in the site suggest that no known hazardous substances are located in the site. It will be important to develop proper epidemiological methods to apply particularly to the hazardous waste problem. See Department of Health, Education and Welfare, Report on the Potential Health Effects of Toxic Chemical Dumps, reprinted in Sen. Comm. on Environment and Public Works, Health Effects of Toxic Pollution: A Report from the Surgeon General and a Brief Review of Selected Environmental Contamination Incidents with a Potential for Health Effects, 96th Cong., 2d Sess. (Comm. Print 1980) at 28-35 (hereinafter cited as Surgeon General's Report)

16. Id. at 30. Many scenarios are possible. One that may be all too common is suggested in the study of the Walnut Hill neighborhood in Woburn, Massachusetts. There cancer statistics for a 10 year period show that the cancer rate was 13 percent higher than it should have been statistically. Woburn is also the location of an industrial waste dump which was not discovered until someone bought the land and began to excavate, attempting to develop it. Some of the wastes in the dump date back 100 years. Langer, Hazardous Wastes: Ghosts of a Prodigal Past, Technology Review Aug/Sept. 1980 at 10. Thus, statistical evidence of abnormal cancer rates may itself be an indication that a hazardous waste dump is close at hand.

17. As Selin M. Senkan and Nancy W. Stauffer noted, "[t]he best regulations would protect human health and the environment while imposing the minimum economic hardship on industry and thus our national economy." Senkan and Stauffer, supra note 15, at 40. As such selecting chemicals to regulate by labelling them hazardous involves a delicate balance between many factors. Id. See also, Jellinck, On the Inevitability of Being Wrong, Technology Review, Aug/Sept. 1980 at 8. In that piece, a former EPA administrator indicating that scientific uncertainty about the effects of certain substances on the environment often forces regulators who need certainty into the position of making the wrong decisions.

18. In fact, for purposes of quantifying the effects that wastes have on human health, this definition of hazardous is likely to best reflect the quantity to be measured. As such, this memo will focus on the definition of "hazardous waste dump site" and not just the definition of hazardous waste. See Surgeon General's Report, supra note 15, at 19-21

19. Id. In reality, estimates of the number of humans who will be injured by exposure and manifest that injury will only be done in the roughest terms. Cancer is likely to be one of the potential effects of exposure that causes great public concern, yet the causes of cancer are quite complex, and it will be difficult for scientists to predict that a certain number of individuals from an exposed group will develop cancer because they were exposed until statistics are developed for the particular type of exposure. See Reif, The Causes of Cancer, 69 American Scientist 437 (1981); MacMahon, In pursuite of the Public Health, Technology Review, Nov/Dec. 1981 at 51.

20. Subcomm. on Oversight and Investigations, House Comm. on Interstate and Foreign Commerce, Waste Disposal Site Survey, 96th Cong., 1st Sess. (Comm. Print 1979).

21. Id. at xiii.

22. Langer, supra note 16, at 10.

23. As the Department of Health, Education and Welfare noted, one problem that is not completely solvable is that "there may never be certainty that all hazardous waste dumps have been identified regardless of approach." Department of Health, Education and Welfare, supra note 15, reprinted in Surgeon General's Report, supra note 15, at 26.

24. Id. at 24.

25. Id. at 27.

26. Id. at 45-50. Of course identifying the chemicals or substances in the site is not the same as showing that the substances are toxic. Often, as was the case at Love Canal, little will be known about the effects of exposure to the group of chemicals contained in a particular site, Love Canal: Health Studies and Relocation Joint Hearings Before the Subcomm. on Oversight and Investigations of the House Comm. on Interstate and Foreign Commerce and the Subcomm. on Environment, Energy and Natural Resources of the House Comm. on Government Operations, 96th Cong., 2d Sess. 43 (1980) (statement of Dr. David Roll, director of the National Institute of Environmental Health Sciences). (hereinafter cited as Love Canal Hearings).

27. Hazardous Waste Fact Sheet, EPA Journal, Feb. 1979 at 12.

28. N.Y. Times, Oct. 24, 1981 at 1, col. 1.

29. Id. Despite this seemingly fixed decision that these dump sites are the most dangerous, there is still uncertainty about the dangers posed by such sites. Some may be considered among the most serious simply because they cover a large area over several states, even though there is no evidence that wastes from the site are causing injury. Cummings, No. 1 Toxic Waste Site is Not a Town's No. 1 Gripe, N.Y. Times, Dec. 9, 1981 at A16 col. 2.

30. U.S. Environmental Protection Agency, Office of Research and Development, Environmental Outlook 1980, 511 (1980).

31. Oversight of Hazardous Waste Management and the Resource Conservation Recovery Act, Hearings Before the Subcomm. on Oversight of Government Management of the Sen. Comm. on Governmental Affairs, 96th Cong., 1st Sess., at 330-31 (1979). See also Goldfarb, The Hazards of Our Hazardous Waste Policy, 19 Nat. Resources J. 249 (1979), where the author suggests that much of the problem with hazardous waste has arisen because it was assumed that there was no significant problem that could not be handled on the state and local level using technology developed privately. He further suggests that RCRA cannot be successful unless waste generators are regulated, not just disposers. Id. at 252. This may be true since much of the hazardous waste is disposed of on site. Id. at 251.

32. Senkan and Stauffer, supra note 15, at 36-37 The authors note that:

> A complete picture of the hazardous waste problem must include wastes produced and handled in the past. It's estimated that from 330 to 570 million metric tons of hazardous wastes were produced between 1960 and 1980. Though some of these wastes have been eliminated through proper treatment and disposal, significant quantities have been kept in over 100,000 industrial disposal sites, many still operating today. In addition to the identified sites, we must assume there are many sites that have long been closed and cannot now be accounted for.

Id.

33. The Surgeon General has concluded:

> [t]hat while at this time it is impossible to determine the precise dimensions of the toxic chemical problem, it is clear that it is a major and growing public health problem. We believe that toxic chemicals are adding to the disease burden of the United States in a significant although as yet ill-defined way. In addition, we believe that this problem will become more manifest in the years ahead.

Surgeon General's Report, supra note 15, at III.

As the scope of the problem becomes clearer, it is likely to lead to a significant burden on the legal system by those seeking compensation. Toxic Time Bombs, Say Latent Disease Suits will be Key Battleground in '80's., 67 ABAJ 139, 1981.

34. Surgeon General's Report, supra note 15, at 2. Yet again, the problem of uncertainty creeps in. As Dr. Steven Gage noted, "in most cases of hazardous waste disposal the impacts on human health have not become as apparent as they have at Love Canal.... That does not say that damage has not been done and will not show up 10 years later, but state-of-the-art simply is not good enough to detect these things." Love Canal Hearings, supra note 27, at 32-33(statement of Dr. Steven Gage).

35. U.S. Environmental Protection Agency, supra note 30, at 522.

B.

REPORT ON STATUTES OF LIMITATION APPLICABLE TO ACTIONS ARISING OUT OF HAZARDOUS WASTE DISPOSAL

Appendix B

TO: Superfund §301(e) Study Group

FROM: Frank P. Grad, Reporter

RE: Report on Statutes of Limitation applicable to actions arising out of hazardous waste disposal.

DATE: September 11, 1981.

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Introduction

The injuries caused by hazardous waste disposal are often latent, or delayed in manifesting themselves. If the injuries are ascertainable after the statute of limitations has run, the action may be barred. The policy of repose expressed in the statute of limitations may be outweighed by the policy of affording the plaintiff a just opportunity to vindicate his rights, 51 Am. Jur. 2d Limitations of Actions §§17, 18, 146 (1971). In order to reach a just result, the majority of jurisdictions have adopted the "discovery rule", which holds that the cause of action does not accrue until the injury or cause of injury is discovered, or through the exercise of reasonable diligence should have been discovered. A number of formulations of the discovery rule are found. Although there has not been any specific opportunity to apply the rule in actions for latent injuries caused by hazardous waste disposal, actions for latent injuries would not be time-barred in the jurisdictions which apply the discovery rule.

Summary and Conclusions

Whether a cause of action is time-barred depends on the applicable statute of limitations and on the precise time when the statute begins to run. Commonly, the statute begins to run when the cause of action "accrues", and with few exceptions (See, e.g., Idaho) that is the point of commencement provided in the state statutes.

The early, traditional view (now the minority view) was that the action accrued at the time of the defendant's tortious act or omission. We may surmise that the rule was quite adequate in earlier times when the defendant's tortious act or omission and the plaintiff's injury were simultaneous. With more latent injuries in product liability, medical malpractice, radiation injuries, toxic torts and other injuries that result from more sophisticated technologies, as demonstrated by the cases cited, the traditional rule caused great hardship to plaintiffs who found that their claims were time-barred before they had first discovered their injuries. In order to effectuate the policy of repose of actions, the traditional rule also held that plaintiff's knowledge of the wrong was immaterial to the running of the statute. In consequence, where latent injuries were not--and could not--be discovered until the statute had run, the bar of the statute was nearly absolute. Note, Developments in the Law: Statutes of Limitations, 63 Harv. L. Rev. 1176, 1203-1205 (1950). The traditional rule now holds a distinct minority position. It has been enacted as law in two jurisdictions, and it has been judicially adopted in six. (See Appendix).

One effort to avoid the harsh result of the traditional rule was the development of the concept of the continuing tort. Where there has been a continuing tortious condition, or a series of tortious acts or omissions, the statute of limitations will begin to run from the time when the plaintiff was last exposed to the condition or acts which caused his injury. The doctrine of the continuing tort has only limited applicability, however, because the defendant's tortious conduct, or the tortious condition must have continued during the entire period of the plaintiff's exposure for the doctrine to apply.

The majority of jurisdictions have abandoned the traditional approach in favor of the "discovery rule". Under the discovery rule, the cause of action does not accrue when the defendant commits a tortious act, but when the plaintiff knows--or reasonably should know--that he has suffered an injury. Eight jurisdictions follow the traditional rule, rejecting the discovery rule, two (Idaho and Virginia) by statute, and six (Alabama, New York, Ohio, South Dakota, Virgin Islands, Wisconsin) by judicial determination.

There are a number of formulations of the discovery rule, and these formulations are set forth at length in the State-by-State analysis. One such formulation starts the running of the statute when the plaintiff's injuries are capable of ascertainment. Although apparently a flexible rule, there may be problems in that the court must decide whether an injury is capable of ascertainment when symptoms first appear, or when they may be diagnosed unequivocably as demonstrating a particular disease or injury. This formulation has been adopted in five jurisdictions. (Arkansas, Indiana, Kansas, Maine, North Carolina).

Another form of the discovery rule holds that the cause of action accrues when the plaintiff actually discovers or knows that he has a particular disease or injury. This form of the rule has been adopted in two jurisdictions (District of Columbia, Nebraska).

Another formulation of the discovery rule provides that the cause of action accrues when the plaintiff knows, or should know, in the exercise of reasonable judgment, that he has suffered a disease or injury. Four states have adopted this formulation. (Connecticut, Delaware, Georgia, Tennessee.) Note that Connecticut imposes a limit of three years after the act or omission that caused the injury.

A similar form of the rule starts the statute running when the plaintiff discovers, or should reasonably have discovered, not only the fact of injury or disease, but also its cause. Some thirteen jurisdictions have accepted this formulation. (California, Illinois, Iowa, Kentucky, Maryland, Massachusetts, Minnesota, Missouri, New Hampshire, Oklahoma, Oregon, Vermont, Washington).

Finally, an even more detailed requirement for the accrual of the cause of action and the running of the statute is the time when the plaintiff realizes, or should realize, that he has suffered an injury or disease and that he has a cause of action. This formulation is encountered in thirteen jurisdictions (Arizona, Colorado, Florida, Hawaii, Louisiana, Michigan, Montana, New Jersey, Puerto Rico, South Carolina, Texas, West Virginia, Wyoming).

While these different formulations of the discovery rule ought to make a difference in different situations, there is no very clear evidence that they do at present, or that they will make a lot of difference in cases involving injuries from hazardous wastes. It is probably fair to say that the discovery rule--in any of its forms--indicates a willingness to relate accrual of the cause of action to the time of the appearance of injury, rather than to the time of the tortious act or omission which initially caused it.

Out of 53 jurisdictions, 37 have adopted the discovery rule, eight have rejected it, and eight (Alaska, Mississippi, Nevada, New Mexico, North Dakota, Pennsylvania, Rhode Island, Utah) have not decided the question, though they may be tending in the direction of the rule. While the number of states which reject the discovery rule is small, it includes such industrial states as New York and Ohio. It is clear that the statutes of limitation will continue to present an insurmountable barrier to many plaintiffs with latent injuries, in spite of the national trend toward the more liberal rule.

State-by-State Analysis

The detailed analysis of the statutes of limitation and their interpretation in 53 jurisdictions (50 states, the District of Columbia, Virgin Islands and Puerto Rico) which follows is divided into four subparts. The first cover jurisdictions that have adopted the discovery rule by statute, and the second covers jurisdictions that have achieved a similar result by case law interpretation. Altogether, 37 states have adopted some formulation of the discovery rule. The third part covers jurisdictions which, by statute or interpretation, have rejected the discovery rule, relying on what used to be the traditional view that the cause of action accrues at the time of the occurrence or exposure that gave rise to the injury. There are 8 jurisdictions which hold to the view that the majority of states have abandoned.

A small number of jurisdictions-- eight --have not clearly committed themselves to either view, though some seem to follow the trend in the direction of the acceptance of the discovery rule, as has been noted, where appropriate, in the discussion.

(1) Jurisdictions Which Have Adopted the Discovery Rule by Statute

Connecticut

Connecticut has enacted the following formulation of the discovery rule for personal injury actions. Conn. Gen. Stat. Ann. §52-584 (West 1960) provides that "[n]o action to recover damages for injury to person... caused by negligence, or by reckless or wanton misconduct...shall be brought but within one year from the date when the injury is first sustained or discovered, or in the exercise of reasonable care should have been discovered...." However, §52-584 also provides that "no such action may be brought more than three years from the date of the act or omission complained of,..."

Connecticut had previously barred personal injury suits unless brought within one year of the act or omission complained of. Conn. Gen. Stat. §8324 (1949). The present law is not, however, completely favorable to victims of toxic waste induced personal injuries. In many such cases, the plaintiff will not have sustained, nor would the prudent person have discovered his injury within three years after the culpable act. As a consequence, unless such a plaintiff is able to take advantage of the continuing tort doctrine, he will find his suit time barred. See Coffin v. Flagella, 5 Conn. Cir. Ct. 85, 90 (Conn. Cir. 1962), 242 A.2d 792, 795 (1962)(non-latent personal injuries caused by traffic accident).

In weighing the hardships, the Connecticut legislature has apparently determined that it is important to protect defendants against stale claims. See Collins, Two Acts Concerning the Statute of Limitations, 32 Conn. B.J. 194, 195 (1958).

Kansas

In Kansas, actions "for injury to the rights of another, not arising on contract" must be brought within two years after the cause of action accrues. Kan. Stat. Ann. §60-513(a)(4)(1976). The law further provides that the cause of action:

"shall not be deemed to have accrued until the act giving rise to the cause of action first causes substantial injury or, if the fact of injury is not reasonably ascertainable until sometime after the initial act, then the limitations shall not commence until the fact of injury becomes reasonably ascertainable...." Id. §60-513(b).

The Kansas statute avoids depriving the plaintiff of a remedy before he learns that he was entitled to one. See Hecht v. First National Bank and Trust Co., 208 Kan. 84, 490 P.2d 649 (1971)(details history of Kansas' limitation law). The statute would not protect a plaintiff with a particularly slowly developing injury, because it provides that "in no event shall the period be extended for more than ten years beyond the time of act giving rise to the cause of action."

Missouri

The period of limitation for personal injury action in Missouri is five years. Mo. Ann. Stat. §516.120(4)(Vernon 1952). The action accrues and the statute begins to run when the damage is capable of ascertainment. "[T]he cause of action shall not be deemed to accrue when the wrong is done or the technical breach of contract or duty occurs, but when the damage resulting therefrom is sustained and is capable of ascertainment, and, if more than one item of damage, then the last item, so that all resulting damage may be recovered, and full and...complete releif obtained." Id., §516.100.

The rationale behind the statute is to suspend the running of the statute of limitations until a person has notice of his cause of action particularly in cases of latent injuries or delayed manifestation of the injury. Krug v. Sterling Drug, Inc., 416 S.W.2d 143, 150 (Mo. 1967).

Missouri courts have interpreted the discovery statute to mean the discovery of the cause of the injury. In a product liability action, the cause of action accrued when the plaintiff was aware of the cause of the eye condition, Id. The statute was also interpreted to mean discovery of the injury. In a permanent nuisance action, the statute commenced when the injury was ascertained. Person v. City of Independence, 114 S.W.2d 175 (Mo. App., 1938).

An exception to the discovery rule is made in occupational disease cases where the statute begins to run at the moment the employee quit work, or the condition is removed. Farrar v. St. Louis-San Francisco Ry. Co., 361 Mo. 408, 235 S.W.2d 391 (1950). The exception is not applicable to a cause of action for latent injuries caused by toxic waste and therefore the statute of limitations will begin to run upon discovery.

North Carolina:

The period of limitations in North Carolina is three years. N.C. Gen. Stat. §1-52(5)(1969). In 1979, the legislature amended the statute to include the discovery rule, limiting the period to ten years from the last act or omission. "[f]or personal injury...the cause of action... shall not accrue until bodily harm to the claimant...becomes apparent or ought reasonably to have become apparent to the claimant, whichever event first occurs. Provided that no cause of action shall accrue more than 10 years from the last act or omission of the defendant giving rise to the cause of action." Id., §1-52(16)(Supp. 1979).

The statute of limitations will not bar a private cause of action arising from latent personal injuries.

Puerto Rico:

The discovery provision of Puerto Rico is written into the same statute prescribing a one year limitation period. The cause of action accrues "from the time the aggrieved party had knowledge thereof." P.R. Laws Ann. tit. 31, §5298(2)(1968).

South Carolina:

The limitation period for actions on personal injury is six years. S.C. Code §15-3-530(5)(1976). In 1977, the statute was amended to include the discovery rule: "all actions initiated under Item 5 of §15-3-530...shall be commenced within six years after the person knew or by the exercise of reasonable diligence should have known that he had a cause of action." Id. §15-3-535 (Supp. 1980).

The discovery statute is applicable to causes of action for latent injury. The Supreme Court of South Carolina has avoided mere mechanical applications of the statute of limitations. Gattis v. Chavez, 413 F. Supp. 33 (D.S.C. 1976). The discovery principle was applied in claims for professional negligence, Mills v. Killian, 273 S.C. 66, 254 S.E.2d 556 (1979) and medical malpractice, Gattis v. Chavez, 413 F. Supp. 33 and in the earlier cases of property damage, King v. U.S., 59 F.9 (C.C.S.C. 1893), appeal dismissed, 164 U.S. 703 (1896): Cohrs v. Fraser 5 S.C. 351 (1874).

Vermont:

In 1967, the Vermont legislature adopted a statute which determines the time of accrual of a cause of action for injuries caused by ionizing radiation or other noxious agents. "Ionizing radiation injury; latent (a) [A]n action to recover for ionizing radiation injury or injury from other noxious agents medically recognized as having a prolonged latent development shall be commenced within three years after the person suffering the injury has knowledge or ought reasonably to have knowledge of having suffered the injury and of the cause thereof, but in no event more than [20] years from the date of the last occurrence to which the injury is attributed." Vt. Stat. Ann. tit. 12, §518(a)(1973).

The legislature by adopting the statute had seen fit to recognize the right of an individual to sue for damages resulting from ionizing radiation, State v. Warshow, 138 Vt. 22, 410 A.2d 1000 (1979)(Billings. J., dissenting).

In addition, there is a general statute of limitation for personal injuries. The action must be commenced within three years after accrual and "...the cause of action shall be deemed to accrue as of the date of the discovery of the injury..." Vt. Stat. Ann. tit. 12, §512(4)(Supp. 1981).

The discovery doctrine in Vermont means discovery of facts constituting the basis of the cause of action or the existence of facts sufficient to put a person of ordinary intelligence and prudence on inquiry which, if pursued, would lead to discovery. Union School District No. 20 v. Lench, 134 Vt. 424, 365 A.2d 508 (1976).

The Vermont statute indicates a legislative policy to support private damage actions for latent injuries--including damages caused by toxic waste.

(2) Jurisdictions Which Have Adopted the Discovery Rule by Judicial Interpretation

Alaska:

In Alaska, actions for "any injury to the person" are barred unless commenced within two years after the cause of action accrues. Alas. Stat. §09.10.070 (1962). In its most recent interpretation of the statute's accrual language, Austin v. Fulton, 444 P.2d 536 (Alas. 1968), which involved property damage from insurer's negligence in not issuing an insurance policy covering earthquake loss, Alaska's Supreme Court ruled that the limitation period does not begin to run against a plaintiff until the tort is complete. In support, the court cited the Restatement of Torts, which also states that "a cause of action for negligently harming a person or a thing is complete upon physical contact, even though there is no observable damage at the time of contact." Restatement of Torts §899, comment c at 525 (1939).

The Austin opinion suggests that in 1968 the Alaska court favored applying the traditional rule to cases involving latent personal injuries. Because, however, the court did not explicitly rule on the matter, the case is of persuasive value only. In addition, since the Austin decision, the trend of judicial authority as well as of the American Law Institute. See Id. at 441 (1979) is to move in the direction of the discovery rule, at least in cases involving latent injuries. It is likely that Alaska will follow that trend.

Arizona:

In Arizona, actions "[f]or injuries done to the person of another must be commenced and prosecuted within two years after the cause of action accrues...." Ariz. Rev. Stat. §12-542 (1956). In its most recent interpretation of the accrual language of the statute, Sato v. Van Denburgh, 123 Ariz. 225, 599 P.2d at 183, the Arizona Supreme Court ruled that "the cause of action accrues when the plaintiff knows or...should have known of the defendant's negligent conduct." Id. at 227, 599 P.2d at 183. Although Sato was a suit involving subsequently discovered accounting malpractice, the general language employed by the court suggests that it would apply the same rule to toxic waste related injury cases.

Arkansas:

In Arkansas, "all actions (of account, assumpsit, or on the case,) founded on any contract or liability, expressed or implied" must be brought within three years after the cause of action accrues. Ark. Stat. Ann. §37-206 (1962). Arkansas law on the subject was carefully analyzed by the 8th Circuit Court of Appeals, which held that "in the instances where there has been a delay between the negligent act and the damage, the occurrence of harm marks the beginning of the period."

Scheneberk v. Sterling Drug, Inc., 423 F.2d 919, (8th Cir. 1970)(eye injury caused by negligently manufactured and distributed drug). Significantly, the 8th Circuit's construction of Arkansas law has been cited with approval by the state's highest court. Midwest Mutual Insurance Co. v. Arkansas National Co., 260 Ark. 352, 357, 538 S.W.2d 574, 577 (1976).

California:

In California, actions for "injury to or for the death of one caused by the wrongful act or neglect of another" must be commenced within one year after the cause of action accrues. Cal. Civ. Proc. Code §340.3 (West 1954). One of the state's most often cited rulings on the time of accrual of a cause of action is found in Warrington v. Charles Pfizer & Co. 274 Cal. App. 2d 564, 80 Cal. Rptr. 130 (1969). There, the court was confronted with a case of latent personal injuries resulting from the ingestion of a drug, but the court seemed intent on stating a ruling to cover all latent injury cases.

> [W]hen personal injury is suffered without perceptible trauma and by silent and insidious impregnation as a consequence of the act or omission of another, who...is charged with the responsibility of knowing that such an act or omission may result in personal injury, and the injured person is unaware of the cause of his injury, and as a reasonably prudent and intelligent person could not, without specialized knowledge, have been made aware of such cause, no action for tort resulting from such cause begins to accrue until the injured

> person knows or by the exercise of reasonable diligence should have discovered the cause of such injury. Id. at 569-570, 80 Cal. Rptr. at 133.

To mitigate the potentially harsh effects which the California discovery rule may have on defendants, subsequent appellate decisions have required that plaintiffs seeking to invoke the rule plead facts to justify delayed accrual. They must allege the time and manner of discovery as well as the circumstances explaining delayed discovery. See G.D. Searle and Co. v. Superior Court, 49 Cal. App. 3d 22, 26, 122 Cal. Rptr. 218, 220 (1975).

Colorado:

Colorado is another state whose judicial language indicates adoption of the discovery of cause of action formulation of the discovery rule. Colorado Revised Statutes §§13-80-110(d) and (g) (1973), require that "[a]ll actions of assumpsit, or on the case founded on any contract or liability, express or implied" as well as "[a]ll other actions on the case, except actions for slander and for libel" be commenced within six years after the cause of action accrues. In its interpretation of the legislature's accrual language, the Colorado Supreme Court offered the following rationale for adopting the discovery rule:

> [t]o say that a cause of action accrues to a person when she may maintain an action thereon and, at the same time,

that it accrues before she...can reasonably be expected to have knowledge of any wrong inflicted upon her is patently...unrealistic. She cannot maintain an action before she knows that she has one. To say to one who has been wronged, 'You had a remedy, but before the wrong was ascertainable to you, the law stripped you of your remedy, makes a mockery of the law.' Owens v. Brochner, 172 Colo. 525, 530, 474 P.2d 603, 606 (1970)(latent injuries resulting from medical malpractice) (quoted from Berry v. Branner, 245 Or. 307, 312, 421 P.2d 996, 998 (1966)).

In Owens, the court was interpreting the accrual language of a medical malpractice limitations statute parallel to the one governing personal injury actions. Colo. Rev. Stat. §87-1-6 (1963). However, the court's sweeping statement suggests that the philosophy and rule of Owens would be applied with equal vigor to toxic waste related injury cases.

District of Columbia:

In the District, actions for personal injury involving negligence are subject to a three year limitation period. D.C. Code §12-301(8) (1973). Recently, the District of Columbia Court of Appeals recognized that in the ordinary negligence suit, the fact of injury is readily discoverable and that the cause of action accrues when the injury occurs. It argued, however, that "closer scrutiny is necessary in instances... where the injury is not apparent." Burns v. Bell, 409 A.2d 614, 615

(D.C. 1979)(latent injuries resulting from medical malpractice). In adopting the discovery rule for medical malpractice, the court reasoned that "[b]y focusing on discovery as the element which triggers the statute of limitations, the discovery rule gives those injured adequate time to seek relief on the merits without undue prejudice to medical defendants." Id. at 617.

The court addressed itself only to causes of action for medical malpractice. Its concern with the needs of the plaintiff whose "injury is not apparent", however, suggests that it would extend the discovery rule to cover toxic waste induced personal injury cases as well.

Delaware:

Personal injury actions in Delaware are required to be brought before "the expiration of [two] years from the date upon which it is claimed that such...injuries were sustained...." Del. Code tit. 10, §8119 (1974). In construing the statute, Delaware courts apply the knows or should know formulation of the discovery rule to those cases in which an "inherently unknowable injury has been suffered by one who is blamelessly ignorant of the effect of the wrongful act and the harmful effect develops gradually over a period of time." Oakes v. Gilday, 351 A.2d 85, 88 (Del. Super. Ct. 1976)(latent eye injury from improper medical treatment).

Florida:

The leading case interpreting Florida's four year statute of limitations for "actions founded on negligence", Fla. Stat. Ann.

§95.11(3)(a)(West 1979), is City of Miami v. Brooks, 70 So.2d 306 (Fla. 1954)(latent injuries resulting from radiation treatment overdose). In Brooks, the Florida Supreme Court ruled that "the statute attaches when there has been notice of an invasion of the legal rights of the plaintiff or he has been put on notice of his right to a cause of action." Id. at 309.

Georgia:

In Georgia, personal injury actions are required to be brought "within two years after the right of action accrues...." Ga. Code Ann. §3-1004 (1975). Georgia's intermediate courts have consistently held that "[w]hen [an] injury resulting from a tortious act is not immediately apparent the statute of limitations is tolled so long as the victim could not in the exercise of ordinary care have learned of it...." Forgay v. Tucker, 128 Ga. App. 497, 500 (Ga. App. 1973), 197 S.E.2d 492, 494 (1973)(latent injuries caused by medical malpractice).

Georgia's Supreme Court has held that in cases to which the continuing tort doctrine is applied, the cause of action accrues when plaintiff's exposure to a hazard first produces ascertainable injury. Everhardt v. Rich's Inc., 229 Ga. 798 194 S.E.2d 425 (1972) (negligent sale of goods causing delayed personal injuries). However, the continuing reliance by the state's intermediate courts on the discovery rule seems to indicate the obsolescence of the continuing tort doctrine in Georgia.

Hawaii:

Hawaii's highest court, in its interpretation of the state's two year statute of limitations for "damage or injury to persons or property", Haw. Rev. Stat. §657-7 (1976) held in Yoshizaki v. Hilo Hospital, 50 Haw. 150, 433 P.2d 220 (1967) that the statute does not begin to run until the plaintiff "knew or should have known of the defendant's negligence." Id. at 155, 433 P.2d at 223.

Illinois:

Illinois law requires that [a]ctions for an injury to the person... be commenced within two years...after the cause of action accrue[s]." Ill. Ann. Stat. Ch. 83, §15 (Smith-Hurd 1966). Two separate lines of cases have developed in applying the discovery rule to the Illinois limitation statute. The first, traumatic injury cases, involves situations in which the plaintiff either knows or reasonably could be expected to know that someone may be legally responsible for his injury. The second line of cases, disease cases, "involve[s] injuries which do not themselves put the plaintiff on notice that someone may be legally at fault." Witherell v. Weimer, 77 Ill. App. 3d 582, 587, 396 N.E.2d 268, 272 (1979)(latent injuries resulting from ingestion of birth control pills). Accordingly, in such cases, Illinois courts have concluded that the period of limitations "does not commence when the plaintiff learns of his injury, but only after the plaintiff 'knows or has reason to know that he or she has a physical problem and also that someone is or may be responsible for it'." Id.

Indiana:

The Indiana two year limitations statute for "injuries to person or character [and] for injuries to personal property", Ind. Code. Ann. §34-1-2-2 (Burns 1973) like the Kansas statute, See note 6 supra and accompanying text, was most articulately construed by a federal circuit court of appeals. Based on an analysis of the state's law, the 7th Circuit Court of Appeals held that a cause of action accrues in Indiana "at the time one has suffered (1) a legal injury and (2) resulting damages susceptible of ascertainment." Essex Wire Corp. v. M.H. Hilt Co., 263 F.2d 599, 602 (7th Cir. 1959)(latent damage to property). That formulation was subsequently followed in a personal injury action in which the United States District Court for the Southern District of Illinois ruled a plaintiff's suit time-barred because over two years had elapsed since her latent eye injuries were ascertained. Withers v. Sterling Drug Co., 319 F. Supp. 878, 881 (S.D. Ill. 1970).

Iowa:

In Iowa, actions "founded on injuries to person...whether based on contract or tort" must be commenced two years after the cause of action accrues . Iowa Code Ann. §614.1(3)(West 1950). In deciding when a cause of action accrues, Iowa's highest court stated that "[i]f an injured party is wholly unaware of the nature of his injury and the cause of it, it is difficult to see how he may be charged with lack of diligence or sleeping on his rights." Chrischilles v. Griswold, 260 Iowa 453, 461, 150 N.W.2d 94, 100 (1967)(latent defects caused by negligent design of plaintiff's home). As a result, the court concluded that "a cause of action based on negligence does not accrue until plaintiff has in fact discovered that he has suffered injury or by the exercise of reasonable diligence should have discovered it...." Id. at 463, 150 N.W.2d at 100.

Kentucky:

In Kentucky, actions for "an injury to the person of the plaintiff" must be commenced within one year after the cause of action accrues. Ky. Rev. Stat. §413.140(a). In interpreting the statute, the Kentucky Supreme Court adopted the definition of accrual previously enunciated by the Supreme Court of New Hampshire in Raymond v. Eli Lilly & Co., 117 N.H. 164, 172, 371 A.2d 170, 174 (1977).

> 'A cause of action will not accrue...until the plaintiff discovers or in the exercise of reasonable diligence should have discovered not only that he has been injured, but also that his injury may have been caused by the defendant's conduct.' Louisville Trust Co. v. Johns-Manville Products, 580 S.W.2d 497, 501 (Ky. 1979)(lung cancer caused by inhalation of asbestos dust and fibers).

The Kentucky court extended the above formulation of the discovery rule to all "tort actions for injury from latent disease caused by exposure to a harmful substance whether the action be based on negligence or on a products liability theory." Id.

Louisiana:

In Louisiana, actions for "damages caused by animals, or resulting from offences or quasi offenses" are "prescribed by one year." La. Civ. Code Ann. art. 3536 (West 1953). In addition, the Louisiana legislature requires that the prescription on such actions run from the day "on which ...damages were sustained." Id. §3537.

Traditionally, in determining when damages are sustained, the Louisiana courts applied the discovery rule, termed there contra non valentem agere non currit prescriptio, to cases in which the plaintiff lacked actual or constructive knowledge of the defendant's tortious act and the resulting damage. However, the doctrine's application was limited to such of those cases in which the "debtor...concealed the fact of the obligation or...committed other acts which tend to hinder, impede or prevent the creditor from ascertaining knowledge of the existence of the debt." Cartwright v. Chrysler Corp., 255 La. 598, 603, 232 So.2d 285, 287 (1970). In 1979, the Louisiana Supreme Court extended the doctrine to those cases in which the "cause of action is not known or reasonably knowable to the plaintiff, even though his ignorance is not induced by the defendant." Corsey v. State Department of Corrections, 375 So.2d. 1319, 1322 (La. 1979)(prisoner's injuries caused by Department of Corrections).

Maine:

In Maine, actions for negligently inflicted personal injuries are governed by the state's six year limitation statute. Me. Rev. Stat. tit. 14, §752 (1964). In construing the statute, Maine's Supreme Court has reasoned that the accrual of a cause of action in tort is measured at the point at which a wrongful act produces an injury for which a plaintiff is entitled to seek relief. Accordingly, the court has held that where the wrongful act and the injury are not contemporaneous, "the statute must be considered to have commenced to run against a plaintiff at the time when he...rece[ives] a judicially recognizable injury." Williams v. Ford Motor Co., 342 A.2d 712, 715 (Me. 1975)(accident caused by latent defects in automobile). The court, however, effectively limited the benefit of its holding to plaintiffs in toxic waste cases by adding in dicta that "a cause of action arises when a wrongful act is coupled with an injury, no matter how slight...." Id. at 716.

Maryland:

In interpreting Maryland's three year limitation statute for negligently produced personal injuries, Md. Cts. & Jud. Proc. Code Ann. §5-101 (1980), the court noted that in general limitations against a cause of action begin running from the date of the alleged wrong. The court, however, explicitly excepted those cases involving the development of diseases. In such cases, according to the court, "a plaintiff's cause of action accrues when he ascertains, or through the exercise of reasonable care and diligence should have ascertained, the nature and cause of his injury." Harig v. Johns-Manville Products Corp., 284 Md. 70, 83, 394 A.2d 299, 306 (1978)(malignant mesothelioma caused by exposure to defendant's asbestos products).

Massachusetts:

In Massachusetts, personal injury actions are governed by a three year limitation period. Mass. Ann. Laws. ch. 260, §2A (Michie Law Co-op 1980). In adopting the discovery rule in products liability actions, the Supreme Judicial Court reasoned that "[a] cause of action based on negligence requires that both negligence and harm be shown with a causal connection between these elements." Cannon v. Sears, Roebuck & Co., 374 Mass. 739, 742, 374 N.E.2d 582, 584 (1978). In that action, the court dealt specifically with a case in which the plaintiff's injuries occurred several years subsequent to the defendant's negligent manufacture and sale of a defective product. Yet the court said that '[l]imitation statutes should apply equally to similar facts regardless of the form of the proceeding', Id. at 743, 374 N.E.2d at 584 (quoted from Hendrickson v. Sears, 365 Mass. 83, 85, 310 N.E.2d 131, 132 (1974), suggesting that it would apply the same discovery rule to toxic waste-induced personal injury cases.

Michigan:

In Michigan, actions to recover damages for injury to a person must be commenced within three years after the time of injury. Mich. Comp. Laws Ann. §600.5805(8)(Supp. 1980). Moreover, the law provides that a personal injury claim accrues "at the time the wrong upon which the claim is based was done regardless of the time when damage results." Id. §600.5827 (1968).

The State's Supreme Court, however, has interpreted "wrong" as used in the statute to mean "actionable wrong". It has, in addition, defined actionable wrong as consisting of four elements: the existence of a

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legal duty; the breach of such duty; approximate causal relationship between the breach of such duty and an injury to the plaintiff; and damages suffered by the plaintiff. Consequently, according to the court, a suit arising out of a tortious injury to a person can only accrue "when all the elements of the cause of action have occurred and can be alleged in a proper complaint." Connelly v. Paul Ruddy's Co., 388 Mich. 146, 150, 200 N.W.2d 70, 72 (1972)(personal injuries resulting from latent defects in printing press).

Minnesota:

Actions for negligently inflicted personal injuries in Minnesota must be commenced within six years after the cause of action accrues. Minn. Stat. Ann. §541.05(5)(West 1947). In determining when a cause of action accrues, the state's Supreme Court reasoned that "[a]n action for negligence cannot be maintained, nor does the statute of limitations begin to run until damage has resulted from the alleged negligence." Dalton v. Dow Chemical Co., 280 Minn. 147, 153, 158 N.W.2d. 580, 584(1968) (personal injuries resulting from exposure to cleaning solvent produced by defendant). The court, thus, concluded "the alleged negligence... coupled with the alleged resulting damage is the gravamen in deciding the date upon which the cause of action...accrues." Id.

Montana:

A personal injury action must be brought within three years from the date of accrual. Mont. Rev. Codes Ann. §27-2-204(1)(1979). The statutory law includes a discovery rule for medical malpractice, Id. §27-2-25, for legal malpractice, Id., §27-2-206, and for waste, trespass or injury during mining, Id., §27-3-30.

The discovery rule in Montana stands for the principle that the statute of limitations does not commence running until the plaintiff has knowledge of his cause of action. Interstate Mfg. Co. v. Interstate Products Co., 146 Mont. 449, 454, 409 P.2d 478, 481 (1965). There is no case law which discusses application of the discovery principle to latent injuries. However, the cases that held that the statute runs regardless of the plaintiff's lack of knowledge were premised on the fact that the ignorance was the result of want of diligence and a party cannot take advantage of his own fault. Id. The discovery rule was applied for breach of agreement, Hansen v. Kiernan, 159 Mont. 448, 457, 449 P.2d 787, 792 (1972) and for conversion, where plaintiff's ignorance is neither wilful nor the result of negligence. Interstate Manufacturing Co., see note 94 supra.

Before the adoption of the discovery statute for medical malpractice, the common law applied the discovery rule in cases in medical malpractice where a foreign object was left in a patient's body after an operation. Johnson v. St. Patrick's Hospital, 148 Mont. 125, 417 P.2d. 469 (1966).

Despite the fact that Montana courts caution that use of the discovery rule should be subject to restraint and must take into account consideration of fairness to the defendant, Grey v. Silver Bow County, 149 Mont. 213, 217, 425 P.2d 819, 821 (1967), the cause of action for latent injuries may not be time-barred. Another possible way to circumvent the statute of limitation bar is to use the doctrine of continuous torts. If the cause of action involves a continuing temporary nuisance, as in the pollution of ground water by dumping glue waste, the plaintiffs are entitled to damages for the injuries that occurred during the two years preceding the filing date of complaint. Nelson v. C & C Plywood Corp., 154 Mont. 414, 435-36, 465 P.2d 314, 325 (1969).

Nebraska:

The period of limitations for personal injury actions in Nebraska is four years. Neb. Rev. Stat. §25-207 (1979).

The case law on accrual of causes of action indicates that Nebraska courts are receptive to the discovery doctrine. The discovery rule in Nebraska means discovery of facts sufficient to put a person of ordinary intelligence and prudence on inquiry which, if pursued, would lead to discovery. It does not merely mean discovery of the cause of the injury. Grand Island School Dist. v. Celotex Corp., 203 Neb. 559, 567, 279 N.W.2d 603, 608 (1979).

Prior to the adoption of the discovery statute for professional negligence, Neb. Rev. Stat. §25-222, strong public policy considerations made the discovery rule applicable to medical malpractice. Omaha Paper Stock Co., Inc. v. Martin K. Eby Constr. Co., Inc., 193 Neb. 848, 230 N.W.2d 87 (1975). In deciding a medical malpractice action, the Nebraska courts stated that in actions where the injury results over a period of time rather than at a point in time, the plaintiff is held to be injured only when the accumulated effects manifest themselves. Acker v. Sorenson, 183 Neb. 866, 872, 165 N.W.2d 74, 77 (1969). The federal court found that under Nebraska law, a case in tort for contraction of the occupational disease, berriolysis, due to exposure of the employer's product, accrues when the employee has knowledge of the compensable disease. Sylvania Electric Products v. Barker, 228 F.2d 842, 350 U.S. 988, cert. den., 76 S. Ct. 475, 100 L.Ed 2d 854 (1st. Cir., 1955). In dicta, the court held that even without the discovery statute for breach of warranty for improvements to real property, Neb. Rev. Stat. §25-223, a discovery rule is applicable to a tort action based on latent defects in improvements to real property. Grand Island School Dist., supra., at 607.

The Nebraska courts readily apply the discovery rule and therefore a cause of action for latent injuries would not be time barred.

New Hampshire:

The period of limitations for personal injury actions in New Hampshire is six years after the cause of action accrued. N.H. Rev. Stat. Ann. §508:4 (1968).

The legislature did not define when an action has "accrued" and therefore the construction of the statute is left to judicial determination. Raymond v. Eli Lilly & Co., 177 N.H. 164, 371 A.2d 170 (1977). There may be a delay between the injury and when the plaintiff becomes aware of the injury and therefore, the choice of accrual in a tort cause of action in complex.

In appropriate cases, the New Hampshire courts may apply the discovery principle in determining when a cause of action accrues. The discovery rule in New Hampshire stands for the principle that the cause of action will not accrue until the plaintiff discovers or, in the exercise of reasonable diligence should have discovered, not only that he has been injured, but also that his injury may have been caused by the defendant's conduct. Id.

The discovery rule imposes only a duty of reasonable care upon potential plaintiffs. Brown v. Mary Hitchcock Memorial Hospital, 117 N.H. 739, 378 A.2d 1138 (1977), at 1139.

In determining whether to apply the discovery rule, New Hampshire courts examine the equities. The process is a weighing of the interest of the plaintiff and the prejudice to the defendant by delay in the case.

The discovery rule was applied in a product liability action against a drug company. The court reasoned that drug companies are unique among potential tortfeasors, for the harmful properties of drugs are often not fully known at the time the drugs are marketed. The companies should know or expect that some time may pass before the harmful effects manifest themselves, and that there may be another time lapse before the injured party is able to discover the causal connection between his injury and the drug consumed. Raymond, supra.

The discovery principle was also applied in an action for fraudulent concealment, Lakeman v. LaFrance, 102 N.H. 300, 156 A.2d 123 (1959), and for medical malpractice, Shillady v. Elliot Community Hospital, 114 N.H. 324, 320 A.2d 637 (1974), McKee v. Riordan, 116 N.H. 729, 366 A.2d 472 (1976). In fact, a statute limiting the discovery principle to medical malpractice actions based on the failure to remove foreign objects was declared unconstitutional. Carson v. Maurer, 120 N.H. 925, 424 A.2d 825, 827 (1980).

The New Hampshire court has not yet examined the equitable considerations of an action for personal injury due to toxic waste. There is a strong similarity between the equities in Raymond, supra. and those present in toxic waste injury and the discovery rule may be applicable.

New Jersey:

The limitations period for injuries to the person of another is two years. N.J. Stat. Ann. §2A:14-2 (West 1939).

The legislature has not specified when the cause of action shall be deemed to have accrued in personal injury cases and the matter has therefore been left entirely to judicial interpretation, Rosenau v. City of New Brunswick, 51 N.J. 130, 238 A.2d 169 (1968).

The courts have adopted an equitable discovery principle which modifies the conventional limitations rule where the plaintiff may be unaware of the cause of action. The ignorance may be that the plaintiff is unaware that he has sustained an injury until after the statute of limitations has run, New Market Poultry Farms, Inc. v. Fellow, 51 N.J. 419, 241 A.2d 633 (1968), or the plaintiff may not know the cause of the damage and that the damage is attributable to the fault or neglect of another, Lopez v. Swyer, 62 N.J. 267, 300 A.2d 563 (1973). The discovery rule in New Jersey provides that in an appropriate case, a cause of action will not accrue until the injured party discovers, or by the exercise of reasonable diligence and intelligence, should have discovered that he may have a basis for an actionable claim. Id. The plaintiff has two years from the time of the discovery to take action, even if discovery is within two years of the actionable conduct. Moran v. Napolitano, 71 N.J. 133, 363 A.2d 346 (1976).

Since the discovery principle is a rule of equity, the equitable claims must be identified, evaluated and weighed. It may be unjust to bar a person's action before he has knowledge of it. On the other hand, it may also be unjust to compel a person to defend long after the injury occurred, for the principal consideration is one of fairness to the defendant. There must be a genuine claim of late discovery and the plaintiff must have had no reason to know of the cause of action. Leonardis v. Bunnel, 147 N.J. Super. 417, 371 A.2d 365 (1977), rev'd on other grounds, 164 N.J. Super. 338, 396 A.2d 357 (1978) factors such as the nature of the injury, availability of evidence and witnesses and the time lapse must be taken into account. Lopez, supra.

The cause of action will not be barred by the statute of limitations in the absence of prejudice, reliance, or unjustifiable delay. Farrell v. Votator Division of Chemetron Corp., 62 N.J. 111, 299 A.2d 394 (1972) (Prejudice refers to injury to the party and not inconvenience to counsel.. Lawrence R. McCoy Co. Inc. v. S.S. Theomitor III, 133 N.J. Super. 308, 336 A.2d 80 (1975).

The discovery rule was first applied in medical malpractice actions, Fernandi v. Strully, 35 N.J. 434, 173 A.2d 277 (1961), in engineering malpractice actions, New Market Poultry Farms, Inc., supra, in an action for improper installation of a conduit, Diamond v. N.J. Bell Telephone Co., 51 N.J. 594, 242 A.2d 622 (1968), and in a product liability action, Burd v. N.J. Telephone Co., 76 N.J. 284, 386 A.2d 1310 (1978). The Burd court held generally that it is of no consequence whether the cause of action arises in the field of products liability or in any other aspect of tort law. Id. at 1314.

The equitable considerations for an action arising from toxic waste has not yet been examined, but one authority asserts that under existing interpretations, the courts would not allow the statute of limitations to serve as a time bar. Committee on Environment and Public Works, Six Case Studies of Compensation for Toxic Substances Pollution, 96th Congress 1980 at 388.

Oklahoma:

A suit for personal injuries must be brought within two years. Okla. Stat. Ann. tit. 12, §95 (West 1960).

The case law on accrual of an action in Oklahoma is reviewed in Williams v. Borden, Inc., 637 F.2d 731 (10th Cir., 1980). As a general rule, mere ignorance of the existence of a cause of action does not toll the running of the statute. However, special rules apply in cases involving particular hardships or other circumstances justifying different accrual rules. Id. Where the party had not been neglectful of his rights, the cause of action accrues when the plaintiff learns of it, or in the exercise of reasonable care and diligence should have learned of it. Seitz v. Jones, 370 P.2d 300 (Okla. 1961).

The discovery principle is not clearly defined, but the federal court held the statute does not accrue until discovery of the cause of injury. Williams, supra. The discovery principle was applied in actions for medical malpractice, *Seitz*, *supra*, in an action for negligent installation of wiring, *Smith v. Johnston*, 591 P.2d 1260 (Okla. 1979), in actions for trespass to real property, *Continental Oil Co., v. Williams*, 207 Okla. 501, 250 P.2d 439 (1952), *Gouin v. Continental Oil Co.*, 590 P.2d 704 (Okla. Ct. App. 1978), *Skelly Oil Co. v. Humphrey*, 158 P.2d 175 (1945), *Peppers Refining Co. v. Spivey*, 285 P.2d 228 (Okla. 1955), and in an action for personal injury caused by an occupational disease, *Williams*, *supra*.

Oregon:

An action for personal injury has a two-year statute of limitation. Or. Rev. Stat. §12-110 (1975).

The case law does not deal specifically with latent injuries caused by toxic waste, but gives a broad application to the discovery rule.

The policy of the Oregon Court is stated in *Adams v. Oregon State Police*, 289 Or. 233, 611 P.2d 1153 (1980). "To say that a cause of action accrues to a person when she may maintain an action thereon and, at the same time, that it accrues before she has, or can reasonably be expected to have knowledge of any wrong inflicted upon her is patently inconsistent and unrealistic." *Id.*, citing *Berry v. Branner*, 245 Or. 307, P.2d 996 (1966). Therefore, the cause of action may not accrue until the plaintiff has a reasonable opportunity to discover his injury and the identity of the party responsible for that injury, *Adams*, *supra*., or when a reasonably prudent person associates his symptoms with a serious or permanent condition and, at the same time, perceives the role which the defendant has played in inducing the condition. *Schiele v. Hobart Co.*, 284 Or. 483, 587 P.2d 1010 (1978).

The discovery rule has been applied in actions for medical malpractice, Berry, supra., Frohs v. Greene, 253 Or. 1, 452 P.2d 564 (1969), legal malpractice U.S. National Bank v. Davies 274 Or. 663,548 P.2d 966 (1976); product liability for defects causing industrial disease, Schiele, supra, Hutchinson v. Semler 227 Or. 437, 361 P.2d 803, 362 P.2d 704 (1961); strict liability, Calvin v. FMC Corp., 43 Or. App. 709 604 P.2d 157 (C.A., 1979); actions filed under the Torts Claim Act for negligent spraying of pesticides, Dowers Farms, Inc. v. Lake County, 288 Or. 669, 607 P.2d 1361 (1980), and for damages resulting from negligence of the Oregon State Police, Adams, supra; wrongful death actions Repp v. Hahn, 45 Or. App. 671, 609 P.2d 398 (1980), and defamation actions involving publications of a confidential nature, White v. Gurnsey, 48 Or. App. 931, 618 P.2d 975 (1980).

Pennsylvania:

The statute of limitations for personal injury was two years. The statute was repealed in 1978. P.L. 202 No. 53 §2(a)[807].

The Pennsylvania courts have not fully settled on the discovery rule. Some courts hold that the limitation period does not begin to run until the discovery of the injury is reasonably possible, Schaffer v. Larzelere, 410 Pa. 402, 189 A.2d 267 (1963), while others hold that the limitation period runs from the time the cause of the harm reasonably should have been discovered, Smith v. Bell Telephone Co. of Pa., 397 Pa. 134,153 A.2d 477 (1959). The burden remains on the injured party, once he discovers the cause of his injuries, to determine within the statutory period, whose negligence or breach of duty, if any, was the cause of injury. *Huber v. McElwee-Courbis Construction Co.* 392 F. Supp. 1379 (E.D. Pa., 1974).

The discovery rule has been applied in actions for medical malpractice, *Ayers v. Morgan,* 397 Pa. 282,154 A.2d 788 (1959), *Puleo v. Broad St. Hospital*, 267 Pa. Super. Ct. 58, 407 A.2d 394 (1979), *Acker v. Palena*, 260 Pa. Super. Ct. 214, 393 A.2d 1230 (1978), *Bayless v. Philadelphia National League Club* 579 F.2d 37 *on remand* 472 F. Supp. 625, *aff'd* 615 F.2d 1352 (3rd Cir., 1978), and psychiatric malpractice, *Greenberg v. McCabe*, 453 F. Supp. 765, *aff'd* 594 F.2d 854 (E.D. Pa., 1978).

The discovery rule of accrual has also been applied in a wrongful death action, *Schaffer*, *supra*, *Gemignani v. Philadelphia Phillies National League Baseball Club, Inc.*, 287 F. Supp. 465 (E.D.Pa., 1967). trespass to real property, *Smith v. Bell Telephone Co. of Penn.*, 397 Pa. 134, 153 A.2d 477 (1959), breach of warranty, *Med-Mar, Inc. v. Dilworth*, 214 Pa. Super. Ct. 402,257 A.2d 910 (Super. Ct., 1969), and to a civil rights action, *Mitchell v. Hendricks* 431 F. Supp. 1295 (E.D. Pa., 1977).

The federal court applied the discovery principle to an action for beryllium poisoning, contracted by an employee over a period of time, *Daniels v. Beryllium Corp.*, 227 F. Supp. 591 (E.D.Pa., 1964), and the state court cited it with approval. *Irrera v. Southeastern Penn. Transportation Authority*, 231 Pa. Super. Ct. 508, 331 A.2d 705 (Super. Ct., 1974).

Tennessee:

The action for personal injury must be brought within one year after it accrues. Tenn. Code Ann. §28-304 (1955).

The Tennessee courts have been receptive to the discovery rule Public policy of the state is opposed to requiring that a suit be filed when circumstances totally beyond oontrol of the injured party make it impossible for him to bring suit. Teeters v. Currey, 518 S.W.2d 512 (Tenn. 1974). "In tort actions, including but not restricted to product liability actions...predicated on negligence, strict liability or misrepresentation, the cause of action accrues and the statute of limitation commences to run when the injury occurs or is discovered or when in the exercise of reasonable care and diligence, it should have been discovered". McCroskey v. Bryant Air Conditioning Co., 524 S.W.2d 487(Tenn. 1975). The McCroskey holding effectively adopted the discovery rule in applying §28-304, Harrison v. Schrader, 569 S.W.2d 822, 825 n.3 (Tenn. 1978).

The discovery principle has been applied to medical malpractice actions, Teeters, supra, Gilbert v. Jones, 523 S.W.2d 211 (Tenn. Ct. App. 1974), to property damage, Watts v. Putnam County, 525 S.W.2d 488 (Tenn. 1975) and a cause of action of a purchaser against a vendor of a condominium for excessive dampness, Sullivant v. Americana Homes, Inc., 605 S.W.2d 246, (Tenn. Ct. App. 1980).

Texas:

The period of limitations for personal injuries actions is two years Tex. Rev. Civ. Stat. Ann. art. 5526(6)(Vernon 1958).

The discovery rule, as applied by the Texas courts, is that the cause of action accrues on the date of discovery of the true facts giving rise to the cause of action, or from the date when in the exercise of reasonable care and diligence, it should have been discovered. *Hays v. Hall,* 488 S.W.2d 412 (Tex. 1972). The Federal courts in Texas determined that the cause of action accrues from the date the cause of injury should have been discovered. *Thrift v. Tenneco Chemicals, Inc., Heyden Division,* 381 F. Supp. 543 (N.D. Texas, 1974).

The discovery rule has been applied to causes of action for property damage due to pollution by the negligent disposal of industrial waste, *Atlas Chemical Industries, Inc. v. Anderson* 514, S.W.2d 309 (Tex. Civ. App. 1974), *aff'd in part, rev'd in part on other grounds*, 524 S.W.2d 681 (Tex. 1975), by the negligent disposal of salt water, *Crawford v. Yeatts*, 395 S.W.2d 413 (Tex. Civ. App. 1965), and to a cause of action for the pollution of subsurface strata of fresh water, *Matysek v. Medders*, 443 S.W.2d 929 (Tex. Civ. App., 1969). The discovery rule is applicable to actions in fraud, *Wise v. Anderson*, 163 Tex. 608, 359 S.W.2d 876 (1962) and in product liability actions, *Thrift*, *supra*.

Although the discovery rule has been applied in most medical malpractice actions, *Harp, supra*, *Gaddis v. Smith*, 417 S.W.2d 577 (Tex. 1977) *Grady v. Faykus*, 530 S.W.2d 151 (Tex. Civ. App., 1975), the court refused to apply it in the limited case of negligent diagnosis. The court reasoned that the evidence was tenuous and speculative, even of the fact of the injury. *Id.* at 154. *Robinson v. Weaver*, 550 S.W.2d 18 (1977) overruling *Sanchez v. Wade*, 514 S.W.2d 812 (Tex. Civ. App., 1974). The court specifically limits the holding to cases of negligent diagnosis, and therefore it should not bar the discovery rule in an action for an injury caused by toxic waste.

The discovery rule is also applicable in the cause of action for contracting the occupational disease asbestosis. The disease developed over a long period of time and the time the injury occurred could not be determined. Strickland v. Johns-Manville Intern Corp., 461 F. Supp. 215 (S.D. Tex., 1978). The Texas Court in Gaddis, supra, approved of the U.S. Supreme Court ruling in Urie v. Thompson, 337 U.S. 163, 69 S. Ct., 1018, 93 L.Ed. 2182 (1949) that the employee is injured only when the accumulated effects of the deleterious substances manifest themselves.

Washington:

The period of limitations for personal injury action is three years from the time of accrual. Wash. Rev. Code Ann. §4.16.080 (1962).

It is the policy of the Washington courts to construe accrual of an action in a manner which will effectuate the purpose of the law to compel the plaintiff to exercise his rights within a reasonable time without doing an unavoidable injustice to either of the parties. Janisch v. Mullins, 1 Wash. App. 393, 461 P.2d 895. (Ct. App., 1969). Thus, it becomes important to weigh the competing concerns of the parties.

In a products liability action, decided under Wash. Rev. Code Ann. §4.16.080, the court applied the discovery rule and held that the cause of action did not accrue until the plaintiff discovered, or reasonably should have discovered both the injury and the fact that a particular product caused it. Ohler v. Tacoma General Hospital, 92 Wash. 2d 507, 598 P.2d 1358 (1979). Discovery was also appropriate in a libel suit

Kittinger v. Boeing Co., 21 Wash. App. 484, 585 P.2d 812 (Ct. App., 1978).

The discovery rule was applied in different types of professional malpractice actions: attorney malpractice, Peters v. Simmons, 87 Wash. 2d 400, 522 P.2d 1053 (1976); accountant malpractice, Hunter v. Knight, Vale & Gregory, 18 Wash. App. 640, 571 P.2d 212 (Ct. App. 1977); stockbroker malpractice, Hermann v. Merrill Lynch, Pierce, Fenner & Smith, 17 Wash. App. 626, 564 P.2d 817 (Ct. App. 1977), and surveyor malpractice, Kundahl v. Barnett, 5 Wash. App. 227, 486 P.2d 1164 (Ct. App., 1971).

West Virginia:

The period of limitations for personal injury actions in West Virginia is two years. W. Va. Code §55-2-12 (1966).

The general rule is the statute accrues from the date of injury, State ex rel Asckworth v. State Rd. Commission, 147 W. Va. 430, 128 S.E. 2d 471 (Ct. App., 1962). However, there have been judge-made exceptions, where the cause of action does not accrue until, by the exercise of reasonable diligence, the wrongful act was discovered or should have been discovered. Hill v. Clarke, 241 S.E. 2d 572 (W. Va. 1978). The discovery principle was applied in actions for medical malpractice, Id., Morgan v. Grace Hospital Inc., 149 W. Va. 783, 144 S.E. 2d 156 (Ct. App., 1965), Bishop v. Byrne, 265 F. Supp. 460 (S.D. W. Va., 1967), in a cause of action for trespass, Petrelli v. West Virginia-Pittsburgh Coal Co., 86 W. Va. 607, 104 S.E. 103 (1920), and in an action for legal malpractice, Family Savings and Loan, Inc. v. Ciccarello, 207 S.E.2d 157 (W. Va. Ct. App. 1974).

Wyoming:

A personal injury action has a four year statute of limitations in Wyoming. Wyo. Stat. §1-3-105(a)(iv)(C)(1977).

The Wyoming court states that the rule of discovery is used for personal injury actions. When a cause of action for personal injury arises, the period of limitations begins to run when the plaintiff knows or has reason to know the existence of a cause of action. (dict). Duke v. Housen 589 P.2d 334 (Wyo. 1979), rehearing den. 590 P.2d 1340, cert. den. 444 U.S. 863, 100 S. Ct. 132, 62 L.Ed. 2d. 86 (1979). The discovery rule was adopted in a professional malpractice action against an engineer. Banner v. Town of Dayton, 474 P.2d 300 (Wyo. 1970), and in an action against a town for damages caused by rechanneling water, Town Council of Town of Hudson v. Ladd, 37 Wyo. 419, 263 P. 703 (1928).

(3) Jurisdictions Which Reject the Discovery Rule

Alabama:

Actions to recover for injuries to persons analgous to an action for trespass on the case are subject to Alabama Code tit. 6, §§6-2-30 and 6-2-39 (1977) which require that such actions be commenced "within one year after the cause of action has accrued." See also Sasser v. Dixon, 290 Ala. 17, 273 So.2d 182 (1973)(explaining the difference in the treatment of actions for trespass and trespass on the case). In its most recent interpretation of the statutes, the Alabama Supreme Court rejected the discovery rule, acknowledging that its decision was against the weight of authority. The court held that the statute begins to run from the time that the actionable conduct takes place and that the plaintiff's ignorance of the defendant's tort or the resulting injury will not postpone the running of the statute until their discovery, so long as there is no fraudulent concealment by the defendant. Garret v. Raytheon Co., Inc., 368 So.2d 516, 519 (Ala. 1979)(latent injuries caused by exposure to radiation emitted by negligently manufactured radar system).

To avoid the harsh results of the traditional rule, Alabama has developed the doctrine of continuing tort. Where there has been a series of wrongful acts or omissions, "a cause of action is not barred until one year after the last day on which the plaintiff was exposed to the dangerous condition which caused his injury." Garrett v. Raytheon, 368 So.2d at 521.

The applicability of the continuing tort doctrine is, however, dependent on the nature of the tort charged. Under the doctrine, the defendant's wrongful conduct must continue during the entirety of the claimant's exposure. Estep and Van Dyke, "Radiation Injuries: Statutes of Limitations Inadequacies in Tort Cases," 62 Mich. L. Rev. 753, 755 (1964).

Because of the cumulative effects of exposure to other sources of toxic wastes, the plaintiff may confront special problems if he has suffered multiple exposures. Four possible situations may occur:

> first, more than one person may have exposed the plaintiff, but all the exposures were needed for an injury to result; second, again having multiple defendants, each exposure was sufficient to cause some injury, and thus, each defendant is merely a contributing tortfeasor; third, one person may have caused all of the exposures, and the sum of the exposures was required to produce an injury; and fourth, the single defendant may have exposed plaintiff each time to injury inducing quantities of [toxic wastes] Id. at 756.

While the latter two situations present no problem to the plaintiff who relies on the continuing tort doctrine, the same cannot be said of the former two. "[T]he existence of multiple defendants will present novel questions in attempting to utilize the doctrine and it seems unlikely that it would be applied in such circumstances." Id. at 757.

In 1979 §§6-5 -500 et seq. were added to the Alabama Code of 1975 as a comprehensive statute of limitations dealing with insidious diseases in product liability causes of action. Section 6-502 provides that:

> (b) Where the personal injury, including personal injury resulting in death, or property damage (i) either is latent or by its nature not discoverable in the exercise of reasonable diligence at the time of its occurrence, and (ii) is the result of ingestion or exposure to some toxic or harmful or injury-producing substance, element or particle, including radiation, over a period of time as opposed to resulting from a sudden and fortuitous trauma, then in that event, the product liability action claiming damages for such personal injury or property damage is, or in the exercise of reasonable diligence should have been discovered by the plaintiff or the plaintiff's decedent...
>
> (c) Notwithstanding the provision of subsection (a) and (b) of this section, a products liability action against an original seller must be brought within 10 years after the manufactured product is first put to use by any person or business entity who did not acquire the manufactured product for either resale or other distribution in its unused condition or for incorporation as a component part in a manufactured product which is to be sold or otherwise distributed in its unused condition.

Section 6-5-502 applies only to actions in which each element accrues after July 30, 1979, and no provision of the act has retroactive application, 6-5-503.

In addition to the new provisions regarding the insidious diseases described above, the Alabama legislature in the May of 1980 specifically addressed injury resulting from exposure to asbestos and asbestos-containing products, by amending Act 6-2-30 in 1980. The amendment provides that the cause of action will accrue "at the first date the injured party through reasonable diligence should have reason to discover the injury giving rise to such civil action." Although the amendment was deemed to apply retroactively to "all pending causes of action", its retroactivity was limited in that it extended the limitation in only those pending causes of action which had not previously been held barred by the earlier statutes of limitations. Tyson v. Johns-Mansville Sales Corp., 399 So.2d 263, 268 (Ala. 1981).

Idaho:

The traditional rule that a cause of action accrues and the statute of limitations begins to run from the time of the actionable conduct has been legislatively enacted in the state of Idaho. There, the statute of limitations governing personal injury actions requires that they be brought within two years after the cause of action accrues. Moreover, it provides that "the cause of action shall be deemed to have accrued at the time of the act or omission complained of, and the limitations period shall not be extended by reason of any continuing consequence or damage resulting therefrom." Idaho Code §5-219 (Bobbs-Merrill 1949).

The Supreme Court of Idaho discussed the statute in Owyhee County v. Rife, 100 Idaho 91, 593 P.2d 995 (1979), which involved a suit for malpractice against an accounting firm. It expressly declined to create a discovery of injury exception for legal malpractice, and noted that it had applied a discovery exception in only two classes of cases: those in which a foreign object is left in a patient's body following surgery; and those in which there has been a misdiagnosis of a patient's illness.

New York:

The statute of limitations for personal injuries is three years. N.Y. Civ. Prac. §214(5)(McKinney 1972).

The N.Y. courts have not been in favor of an application of the discovery principle. The courts reason that the policy behind the statute of limitations is that of repose and defendants equities are the same whether the plaintiff has knowledge of the condition or not. The interest of an occasional claimant may be subordinated to society's interest in repose. Schwartz v. Heyder Newport Chemical Corp., 12 N.Y.2d 212, 188 N.E.2d 142, 237 N.Y.S.2d 714, [4 ALR 3d 814](1963) cert. denied, 374 U.S. 808, 83 S. Ct. 1697, 10 L.Ed.2d 1032. Consequently, in a product liability action, the limitation period begins to run at the time of the injury and the injury need not be perceptible in order to start it running. Schmidt v. Merchants Despatch Transp. Co. 270 N.Y. 287, 200 N.E. 824 (1936). The action accrued on a drug induced cancer on the day of the drug injection and not at the time the cancerous condition is apparent. Thornton v. Roosevelt Hospital, 47 N.Y.2d 780, 391 N.E.2d 1002, 417 N.Y.S.2d 920 (1979). The injury was complete and the cause of action for contraction of the occupational disease, pneumoconiosis, when the negligence of the defendant caused the plaintiff to inhale the dust. The disease of the lung was a consequence of the injury and a separate cause of action. Schmidt, supra. The court implied the cause of action accrues at the date of the first exposure. The same applies whether the cause of action is for nuisance, breach of contract or misrepresentation. Id. at 828.

New York has adopted a mitigating doctrine of continuing tort. The doctrine extends to cases where actions causing injury to plaintiffs are not separable. The doctrine is also applied when there is a continued existence of a harmful condition and it could not be said the injury occurred at a particular point in time. Holdridge v. Heyer Schulte Corp. of Santa Barbara, 440 F. Supp. 1088 (N.D.N.Y. 1977). Consequently, a cause of action for the contraction of an occupational disease accrued when the employee left employment. Sadowski v. Long Island R.R., 292 N.Y. 448, 55 N.E.2d 497 (1944). The doctrine of continuing tort was also applied in actions for zoning violations, Fabini v. Kammere Realty Co., 14 Misc. 2d 95, 175 N.Y.S.2d 964 (Sup. Ct., 1958), and to an action by shareholders of a parent corporation for dissolution of a subsidiary. Hayman v. Morris, 175 Misc. 265, 46 N.Y.S.2d 482 (1943).

In McKee v. Johns-Mansville Corporation, 94 Misc. 2d 327 (1978), an occupational disease case, the Supreme Court of Erie County held that a cause of action brought by an employee against manufacturers of asbestos products for contracting asbestosis accrued at the time of discovery of the injury. The court stressed that in a strict liability situation, the determination of time of injury was a proper triable issue and thus left to the jury, citing Orloff Towers v. Vermilya-Brown Co., 50 A.D.2d 740 (1975). However, the court was careful to distinguish a cause of action for strict product liability from one for negligence. In product liability the statute usually begins to run at the time of injury; in negligence at the time of last exposure.

The cases decided in the federal courts of New York turn on the issue of when the injury is complete. When an injury is caused by recurrence of application of a product, the cause of action accrues on the last exposure. Wright v.Carter Products, 244 F.2d 53 (2nd Cir. 1957). Where an injury is induced by the repeated exposure to a drug, the action accrues from the date the injury would result naturally, if not inevitably. The focus is on the causal relationship between the initial drug use and eventual injury. Lindsay v. Ortho Pharmaceutical Corp., 481 F. Supp. 314 (E.D.N.Y. 1979). The reasoning of the Lindsay court is questionable, for it is based on the theory that Schmidt, supra. commenced the limitation period at the last, as opposed to the first, time the plaintiff inhaled the injurious substance. The Schmidt court implies otherwise. Moreover, in the Love Canal incident, the court found that the statute of limitations runs from the first exposure to an injury-producing substance. Committee on Environment and Public Works, Six Case Studies of Compensation for Toxic Substances Pollution (1980) at 44.

Exceptions to the general rule that the cause of action does not accrue upon discovery are medical malpractice actions for the failure to remove a foreign object from the body of a patient. The action accrues when the patient could reasonably have discovered it. Flanagan v. Mt. Eden General Hospital, 24 N.Y.2d 427, 248 N.E. 2d 871 (1969). The foreign object rule is premised on the theory that there is no possible causal break between the doctor's negligence and the patient's injury. Id. at 872. The legislature left no doubt that Flanagan cannot be broadened beyond its confines. Beary v. City of Rye, 44 N.Y.2d 398, 377 N.E.2d 453, 406 N.Y.S.2d 9 (1978).

Tolling of the statute of limitations by the doctrine of equitable estoppel is not permissible if neither fraud nor fraudulent concealment occurred. Florio v. Cook, 48 N.Y.2d 792, 399 N.E.2d 947, 423 N.Y.S.2d 917 (1979). Therefore, a cause of action for latent injuries caused by toxic waste will be time-barred if brought more than three years after the first exposure.

Ohio:

The limitation period for personal injury actions is two years. Ohio Rev. Code Ann. §2305.10 (Baldwin 1981).

The Ohio court expressly refused to adopt the discovery rule. Wyler v. Tripi, 25 Ohio St. 2d 164, 267 N.E.2d 419 (1971). Although it may lead to the unconscionable result that the injured party's right to recovery may be barred before he is aware of its existence, the court held that to adopt the discovery rule would fly in the face of clear and contrary legislative intent. Id. at 423. The discovery rule was specifically enacted when the legislature deemed it necessary. See, e.g., Ohio Rev. Code Ann. §2305.9 (Baldwin 1981) (discovery provision for action for fraud).

An exception has been made in the case of medical malpractice for the negligent failure to remove an object from the body of the patient, where the proof of the injury and its cause is not speculative, Melnyk v. Cleveland Clinic 32 Ohio St. 2d 198, 290 N.E.2d 916 (1976). However, the courts have refused to extend the discovery rule to other types of medical malpractice, Pritchard v. Riverside Methodist Hospital 64 Ohio App.2d 125, 411 N.E.2d 1343 (Ct. App., 1978).

Ohio has an ameliorating doctrine, the continuing treatment rule, where the cause of action for medical malpractice accrues at the latest time when the physician-patient relationship finally terminates. Wyler, supra. This doctrine, however, has been limited strictly to medical malpractice cases.

Based on the unwillingness of the courts to apply the discovery rule, a cause of action for latent injuries ascertainable after two years from the injury will be time-barred in Ohio.

Ohio has changed its statute for accrual of a cause of action only with respect to chromium and asbestos-related diseases. Effective 6/12/80, Ohio Rev. Code 2305-10 lets a cause of action "for bodily injury caused by exposure to asbestos or to chromium ... arise upon the date which the plaintiff is informed by competent medical authority that he has been injured by such exposure or upon the date on which ... he should have become aware that he was injured by the exposure, whichever date occurs first."

South Dakota:

There is a three year limitation period for personal injury actions. S.D. Comp. Laws Ann. §15-2-14(3)(1969).

The South Dakota legislature has specifically rejected the discovery rule. In 1975, the legislature temporarily modified the accrual statute by providing that a cause of action accrued when the injury was first discovered. Id. at §15-2-15.1. Although the statute was to expire by its own terms in 1977, it was repealed in 1976. It was subsequently held that the legislature therefore acknowledged and rejected the discovery rule. Alberts v. Giebink, 299 N.W.2d 454 (1980). An action for latent injuries brought more than three years after accrual will be time-barred in South Dakota. However, to mitigate the effect of a three year statute of limitations in products liability causes of action, the Legislature expanded the limitations period to six years for such causes of actions, effective July 1, 1978. S.D. Cod. Laws. Ann. 15-2-12, 1981 Supp. provided that,

> In the application of any statute of limitations to a cause of action against a manufacturer... of a product, regardless of the substantive legal theory... upon which the action is brought, for or on account of personal injury, death or property damage... the cause of action shall be barred if it accrues more than six years after the date of delivery of the completed product..."

Virgin Islands:

There is a two year limitation period for personal injury actions in the Virgin Islands. V.I. Code Ann. tit. 5, §31(5)(1967). The Virgin Islands law is derived from the Alaska law and therefore must be interpreted in light of Alaska law. James v. Henry, 3 V.I. 273, 157 F. Supp. 226 (D.V.I., 1957). The Alaska courts hold that the limitation period does not commence until the tort is complete and the court cites to the Restatement of Torts, §899 comment C at 526-527 for a definition of a completed tort. Austin v. Fulton, 444 P.2d 536 (Alas. 1968). "...A cause of action for negligently harming a person or a thing is complete upon physical contact, even though there is no observable damage at the time of contact." Restatement, supra. An action for latent personal injury brought more than two years after accrual caused by toxic waste will be time-barred.

Virginia:

The period of limitations for personal injury action is two years. Va. Code §8.01-243(A)(1977). The cause of action accrues from the date of the injury and not when damage is discovered. "Accrual of cause of action-... the cause of action shall be deemed to accrue and the prescribed limitation period shall begin to run from the date the injury is sustained in the case of injury to a person ... and not when the resulting damage is discovered ..." Id. at §8.01-230.

The statute of limitations may be an effective block to a cause of action for latent injuries caused by toxic waste. In personal injury actions, the limitation on the right to sue begins to run when the wrong is done and not when the plaintiff discovers that he has been damaged. See Hawks v. Dehart, 206 Va. 810, 146 S.E.2d 187 (1966). An action for the death of an employee, caused by the occupational disease of silicosis, commenced at the time of the original wrongdoing, that of providing unsafe conditions. The death was a consequence of the original wrongdoing and not a new cause of action. Street v. Consumers Mining Corp., 185 Va. 561, 39 S.E.2d 271 (Ct. App. 1946).

However, in Locke v. Johns-Mansville Corp., 275 S.E.2d 900 (Va. 1981), the court held that plaintiff's cause of action for mesothelioma following exposure to asbestos did not accrue during the period of asbestos exposure. Rather, the cause of action under Va. Code 8.01-230, 8.01-243 accrued at the time plaintiff was hurt, which under medical evidence was either the date when plaintiff first experienced impairment of his lungs or the date of the x-ray when abnormality was noted. However, the court is careful to stress that it is not establishing a discovery rule, and that the adoption of such a rule is in the sole ambit of the legislature. It clearly enunciates the principle that where expert medical testimony demonstrates that the injurious disease occurred before onset of the symptoms, the statute would accrue from that earlier time.

Despite the fact that this case rejects a judicial adoption of the discovery rule, it does soften the effect a statute of limitations accruing upon last exposure to the hazardous substance would have by allowing the statute to commence accruing at the time the harm actually occurs, and further by placing the burden upon the defendant to prove facts necessary to establish when the injury actually occurred.

Virginia also has a mitigating doctrine for medical malpractice, where the action accrues when the treatment is terminated, Fenton v. Danaceau, 220 Va. 1, 255 S.E.2d 349 (Va. 1979), Farley v. Goode, 219 Va. 964, 252 S.E.2d 594 (1979), but the cause of action for personal injuries where the injury has latent manifestations is effectively time-barred.

Wisconsin:

Wisconsin has a three year limitation period for actions based on personal injuries. Wis. Stat. Ann. §893.54(1)(West Cum. Supp. 1981).

Wisconsin courts held that whether to adopt the discovery principle is particularly a question of policy which should be left to the legislature, Peterson v. Roloff, 57 Wis.2d 1, 203 N.W.2d 699 (1973). Consequently, before the adoption of the medical malpractice statute in 1979, the common law period of limitation for medical malpractice accrued at the time of injury and not at discovery. McCluskey v. Thranow, 31 Wis.2d 245, 142 N.W.2d 787 (1966), Volk v. McCormick, 41 Wis.2d 654, 165 N.W.2d 185 (1969), Reistad v. Manz, 11 Wis.2d 155, 105 N.W.2d 324 (1969), Peterson v. Roloff, supra. The court refused to adopt the discovery rule for a negligence action against an architect, Milwaukee County v. Schmidt, Garden and Erikson, 43 Wis.2d 445, 168 N.W.2d 559 (1969), and in an action against a bank, in negligence in honoring a check, Peppas v. Marshall and Ilsley Bank, 2 Wis.2d 144, 86 N.W.2d 27 (1957). The discovery rule was not adopted in legal malpractice actions, Boehm v. Wheeler, 65 Wis.2d 668, 223 N.W.2d 536 (1974), Denzer v. Rouse, 48 Wis.2d 528, 180 N.W.2d 521 (1970), and the court stated generally that "Tolling of the statute of limitations ... does not await the time or fact of discovery ...", Id. at 524. Since there is no statute allowing discovery for latent injuries, the action may be time-barred.

(4) Jurisdictions Which Have Not Clearly Committed Themselves to Either View.

Mississippi:

It is likely that Mississippi will apply the discovery rule to latent injuries from toxic wastes, but the issue has not been clearly decided. The Mississippi statute of limitations which governs suits for negligently inflicted personal injuries requires that such suits be brought within six years after the cause of action accrues. Miss. Code Ann. §15-1-49. In medical malpractice actions, a special statute which embodies the discovery rule has been applied, effectively overruling an earlier case, *Wilder v. St. Joseph's Hospital*, 225 Miss. 42, 45-46, 82 So.2d 651, 652. (1955), that had followed the traditional rule.

Ford Motor Co. v. Broadway, 374 So.2d 207 (Miss. 1974), a suit in strict product liability, raised the question whether the cause of action accrued on the date of the defendant's harmful act or on the date that resulting personal injuries were sustained. In reaching its decision, the court noted that since *Wilder*, the Mississippi legislature had enacted the special medical malpractice statute of limitation embodying the discovery rule. It noted also that limitation statutes in product liability cases should "strike a balance between the necessity of providing the consumer with adequate time within which to discover a defect and institute an action, and the need to provide the manufacturer with a definite period of liability." Id. at 209. Accordingly, the court held that the statute began to run, in such actions, at the time that injuries are sustained.

Whether the court's holding will be extended to other situations is unclear, but it is not unlikely that Mississippi will follow the general trend.

Nevada:

Nevada has a two year limitation period for personal injury actions. Nev. Rev. Stat. §11.190(4)(e)(1979).

Nevada courts have not dealt in great depth with the issue of accrual of a cause of action. A case decided in 1962 held the discovery principle was inapplicable in an action for conversion. Palludan v. Bergin, 78 Nev. 441, 375 P.2d 544 (1962). However, a later case adopted the California rule that a cause of action for legal malpractice accrues when the client obtains and discovers, or should discover, the facts establishing the elements of his cause of action. Sorenson v. Pavlikowski, 94 Nev. 440, 581 P.2d 851 (1978). This was later affirmed. Jewett v. Patt, 95 Nev. 246, 591 P.2d 1151 (1979). It is possible that Nevada will apply the discovery rule in the future.

New Mexico:

The period of limitations for personal injury actions in New Mexico is three years. N.M. Stat. Ann. §37-1.8 (1978).

The status of the discovery rule in New Mexico is questionable. A cause of action accrues at the time of injury and not at the time of the negligent act. *N.M. Electric Service Co. v. Montanez*, 89 N.M. 278, 551 P.2d 634 (1976). However, the case law is unsettled in dealing with latent injuries.

In a 1963 malpractice action, the court stated that the cause of action for personal injuries accrues at the time of the wrongful act causing the injury and the mere fact that the plaintiff is not aware of the existence or extent of his injuries or his right of action for malpractice does not postpone the commencement of the statute of limitation. *Roybal v. White*, 72 N.M. 285, 383 P.2d 250 (1963), criticized on other grounds, 89 N.M. 32, 546 P.2d 1189 (1975). The action therefore accrued on the last day of treatment. The court maintained that if the legislature intended the principle of discovery to apply to tort actions, it would have said so. *Roybal*, 383 P.2d at 252.

On the basis of *Roybal*, the federal court in New Mexico held that exposure to asbestos which occurred more than three years prior to filing the action is barred by the statute of limitation. *Bassharm v. Owens-Corning Fiber Glass Corp.*, 327 F. Supp. 1007 (D. N.M., 1971). However, two later court of appeals cases did not uphold the reasoning of *Roybal, supra*.

A cause of action for accountant malpractice accrues at the time of discovery. *Chisholm v. Scott*, 86 N.M. 707, 526 P.2d 1300 (1974). The court distinguished *Roybal* by reasoning that in medical malpractice, the injury and discovery are often simultaneous. This logic is tenuous. In a medical malpractice action, the court of appeals refused to follow the Roybal holding by stating the limitation period in medical malpractice begins to run from the time the injury manifests itself objectively in a physically observable and asertainable manner. Peralta v. Martinez, 90 N.M. 391, 564 P.2d 194 (1977), cert. denied 90 N.M. 636, 567 P.2d 485 (1977).

The state supreme court has not discussed the accrual issue since Roybal and therefore the standing of the discovery principle is questionable.

North Dakota:

The general limitation period for personal injury actions is six years. N.D. Cent. Code §28-01-16(5)(1974).

The case law has not dealt in depth with the issue of accrual of a cause of action. Where the time of the wrongful act and the injury do not coincide, the statute runs from the time of the injury. Milde v. Leigh, 75 N.D. 418, 28 N.W.2d 530 (1947), Keller v. Clark Equipment Co., 474 F. Supp. 966 (D.N.D. 1979).

In an action to recover money from a bank, where no fraud is shown, neither the ignorance of a person of his right to bring an action nor the mere silence of a person liable in the action prevents the running of the statute of limitations. Gipson v. First National Bank of Bismarck, 97 N.W.2d 671 (N.D. 1959). However, the courts applied the discovery principle to actions for medical malpractice, prior to the adoption of the medical malpractice statute N.D. Cent. Code §28-01-18(3). See, e.g., Iverson v. Lancaster, 158 N.W.2d 507 (N.D. 1968).

North Dakota does not have a specific statute of limitations addressing hazardous wastes. However, it has enacted a special statute of limitations with regard to product liability causes of action which extends the general limitations period of six years provided for in the N.D. Cent. Code 28-01-16 (5)(1974), for personal injury actions.

This new statute, N.D. Cent. Code 28-01.1-02 extends the statute of limitations for personal injury, death or damage to property in products liability causes of action to ten years after the date of initial purchase, or within eleven years after the date of manufacture.

Rhode Island:

There is a three year limitation period for actions for personal injuries. R.I. Gen. Laws §9-1.14 (Cum. Supp. 1980).

Prior to the adoption of a statute incorporating the discovery principle for medical malpractice, the case law on accrual of a cause of action called for a careful balancing of the equities in each individual case. The policy of repose of the statute of limitations must be weighed against that of public protection against medical mistreatment which does not become ascertainable until after the period runs.

It has been held that the determination of the time of accrual of a cause of action is not necessarily reserved for the legislature. Simply because the legislature has chosen to clarify or define when a cause of action accrues, it does not necessarily follow that the legislature must have pondered and rejected all other situations which might justify an exception to the statute of limitation for personal injury suits. Wilkinson v. Harrington, 104 R.I. 224, 243 A.2d 745 (1968).

There is a limited number of cases discussing accrual. The court in a products liability action expressly reserved the issue of whether the statute of limitation is tolled until the injury is discovered. Romano v. Westinghouse Electric Co., 114 R.I. 451, 366 A.2d 555 (1975).

However, Von Villas v. Williams, 117 R.I. 309, 366 A.2d 545 (1976) cited the Romano court as holding an exception to the general rule of accrual may be found in cases where a product has a latent, undiscoverable defect.

The discovery principle was not extended to a cause of action in conversion. Fuscellaro v. Industrial National Corp., 117 R.I. 558, 368 A.2d 1227 (1977). The finality of the transaction promoted an ascertainable, definite period of liability. The discovery rule was inapplicable to an action in trespass and ejectment. Astle v. Card, 52 R.I. 357, 161 A. 126 (1932).

Utah:

There is a four year period of limitation for personal injury actions. Utah Code Ann. §78-12-25(2) (1977).

There is a limited amount of case law on accrual of a cause of action. The court cautioned that the statutory discovery rule for malpractice actions, Id., §78-14-4, is limited to malpractice and does not apply to all personal injury actions. Foil v. Ballinger, 601 P.2d 144 (Utah 1979). Absent fraud, the cause of action for irregularities in stock acquisition was not tolled until discovery, Smoot v. Hydra Flame Corp., 522 P.2d 709 (Utah 1974). But see, Snow v. Rich, 22 Utah 123, 61 P.336 (1900). (cause of action for breach of contract arose when the violation is discovered.)

Appendix

Tabular Summary of Jurisdictions and their Personal Injury Limitations Statutes.

State	Statute	Limitation Period	When Period Commences
Alabama	Ala. Code §§6-2-30 and 6-2-34 (1977)	1	Time of negligent act or omission.
Alaska	Alas. Stat. §09.10.070 (1962)	2	Not clearly established.
Arizona	Ariz. Rev. Stat. Ann. §12-542 (1956)	2	When Plaintiff discovers or should discover cause of action
Arkansas	Ark. Stat. Ann. §37-206 (1962)	3	When injury susceptible of ascertainment.
California	Cal. Civ. Proc. Code §340(3)(West 1954)	1	When plaintiff discovers or should discover injury and its cause.
Colorado	Colo. Rev. Stat. §§13-80-110(d) and (g) (1973)	6	When plaintiff discovers or should discover cause of action.
Connecticut	Conn. Gen. Stat. Ann. §52-584 (West 1960)	1	When plaintiff knows or should know of injury but within three years of negligent act or omission (statutory).
Delaware	Del. Code Ann. tit. 10 §8119 (1974)	2	When plaintiff knows or should know of injury.
District of Columbia	D.C. Code §12-301(8) (1973)	3	When plaintiff discovers his injury

Florida	Fla. Stat. Ann. §95.11(3)(1979)	4	When plaintiff discovers or should discover cause of action
Georgia	Ga. Code Ann. §3-1004 (1975)	2	When plaintiff knows or should know of injury
Hawaii	Hawaii Rev. Stat. §657-7 (1976)	2	When plaintiff discovers or should discover cause of action
Idaho	Idaho Code §5-214 (1979)	2	Time of negligent act or omission
Illinois	Ill. Ann. Stat. ch. 83, §15 (Smith-Hurd 1966)	2	When plaintiff discovers or should discover injury or its cause
Indiana	Ind. Code Ann. §34-1-2-2 (Burns 1973)	2	When injury susceptible of ascertainment
Iowa	Iowa Code Ann. §614.2 (West 1950)	2	When plaintiff discovers or should discover injury and its cause
Kansas	Kan. Stat. §60-513(a)(4) (1976)	2	Injury susceptible of ascertainment (statutory)
Kentucky	Ky. Rev. Stat. Ann. §413.104(d)(e)(1972)	1	When plaintiff discovers or should discover injury and its cause
Louisiana	La. Civ. Code Ann. art. 3536 (West 1953)	1	When plaintiff discovers or should discover cause of action.

Maine	Me. Rev. Stat. tit. 14, §752 (1964)	6	When injury susceptible of ascertainment
Maryland	Md. Cts. & Jud. Proc. Code Ann. §5-101 (1980)	3	When plaintiff discovers or should discover injury and its cause
Massachusetts	Mass. Ann. Laws ch. 260, §2A (Michie 1980)	3	When plaintiff discovers or should discover injury and its cause
Michigan	Mich. Comp. Laws Ann. §600.5805(2) (1968)	3	When plaintiff discovers or should discover cause of action
Minnesota	Minn. Stat. Ann. §541.04(5) (West 1946)	6	When plaintiff discovers or should discover injury and its cause
Mississippi	Miss. Code Ann. §15-1-49 (1972)	6	Not clearly established
Missouri	Mo. Ann. Stat. §516.120 (Vernon 1953)	5	When plaintiff discovers or should discover injury and cause (statutory)
Montana	Mont. Rev. Codes Ann. §27-2-204 (1974)	3	When plaintiff discovers or should discover cause of action
Nebraska	Neb. Rev. Stat. §25-207(3) (1979)	4	When plaintiff discovers his injury
Nevada	Nev. Rev. Stat. §11.190(4)(e)(1967)	2	Not clearly established.

Rhode Island	R.I. Gen. Laws §9-1-14 (1956)	3	Not clearly established
South Carolina	S.C. Code §15-3-530(5) (1976)	6	When plaintiff knows or should know of cause of action (statutory)
South Dakota	S.D. Comp. Laws Ann. §15-2-14(3)(1967)	3	Time of negligent act or omission (Legislature rejected discovery rule)
Tennessee	Tenn. Code Ann. §28-3-104 (1980)	1	When plaintiff discovers or should discover injury
Texas	Tex. Rev. Civ. Stat. Ann art. 5526(4) (Vernon 1958)	2	When plaintiff discovers or should discover cause of action
Utah	Utah Code Ann. §78-12-25(2) (1953)	4	Not clearly established
Vermont	Vt. Stat. Ann. tit. 12 §518 (1973)	3	When plaintiff discovers or should discover injury and its cause
Virgin Islands	V.I. Code Ann. Tit. 5 §31(5)(A)(1967)	2	Time of negligent act or omission
Virginia	Va. Code §8.01-243(A) (1950)	2	Time of negligent act or omission (statutory)
Washington	Wash. Rev. Code Ann. §4.16.080 (1962)	3	When plaintiff discovers or should discover injury and its cause
West Virginia	W.Va. Code §55-2-12 (1962)	2	When plaintiff discovers or should discover cause of action

New Hampshire	N.H. Rev. Stat. Ann. §508:4 (1968)	6	When plaintiff discovers or should discover injury and cause
New Jersey	N.J. Stat. Ann. §2A:14-2 (West 1939)	2	When plaintiff discovers or should discover cause of action
New Mexico	N.M. Stat. Ann. §37-1-8 (1978)	3	Not clearly established
New York	N.Y. Civ. Prac. Law. §214(5) (McKinney 1969)	3	Time of negligent act or omission
North Carolina	N.C. Gen. Stat. §1-52(5) (1969)	3	When injury susceptible of ascertainment but within ten years of negligent act or omission
North Dakota	N.D. Cent. Code §28-01-16.5 (1974)	6	Not clearly established
Ohio	Ohio Rev. Code Ann. §2305.10 (Baldwin 1977)	2	At time of negligent act or omission
Oklahoma	Okla. Stat. Ann. tit. 12, §95(3d)(West 1960)	2	When plaintiff discovers or should discover injury and cause
Oregon	Or. Rev. Stat. §12.110 (1977-78)	2	When plaintiff discovers or should discover injury and cause
Pennsylvania	Statute repealed		Not clearly established
Puerto Rico	P.R. Laws Ann. tit. 31 §5298(2) (1968)	1	When plaintiff discovers or should discover cause of action (statutory)

Wisconsin	Wis. Stat. Ann. §893.54(1) (West Supp. 1980-1981)	3	Time of negligent act or omission
Wyoming	Wyo. Stat. §1-3-105 (a)(iv)(c) (1977)	4	When plaintiff discovers or should discover cause of action

Addendum

The New York legislature, on June 17, 1981, adopted the Behen Law. The law, N.Y. Civ. Proc. §214-b (McKinney), adopts the discovery principle for injuries caused by Agent Orange. The limitation period is two years from the date of discovery or when, with the exercise of reasonable diligence, the cause of the injury should have been discovered.

The law is specifically limited to members of the armed forces of the U.S. who were in IndoChina during the period between January 1, 1962 and March 29, 1973.

C.

PROBLEMS OF RESPONSIBILITY AND APPORTIONMENT OF DAMAGES IN HAZARDOUS WASTE CASES AND LIABILITY OF A CURRENT LANDOWNER FOR INJURIES CAUSED BY HAZARDOUS CONDITIONS CREATED BY A PREVIOUS OWNER

Appendix C

Problems of Responsibility and Apportionment of Damages in Hazardous Waste Cases and Liability of a Current Landowner for Injuries Caused by Hazardous Conditions Created by a Previous Owner

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I. Introduction

Issues such as legal causation, proximate cause, statute of limitations, and reasonableness of conduct are difficult to resolve in cases involving injuries from hazardous wastes.[1] This difficulty is compounded by the legal issues that arise when multiple parties are involved in generating and disposing of hazardous wastes, or when several parties have owned the land that contains the wastes.

When several parties have played various roles in improperly disposing of hazardous wastes, the plaintiff must establish a cause of action against every party. An injured plaintiff will seek whenever possible to place liability not only on the hazardous waste site owner, but also on the disposer and the generator.

Assuming a cause of action exists, the next issue is to apportion the damages among the multiple defendants. If the plaintiff's injury was caused by a number of defendants, it is often difficult to determine which defendant caused what part of the injury. Presently, four theories of apportionment allow a plaintiff to shift the burden of proving causation of damages. The four theories are concert of action, alternative liability, market share liability and enterprise liability. However, none of the theories are accepted by all jurisdictions and none will apply to the fact situation of all hazardous wastes.

II. Causes of Action

A. Stating a Cause of Action Against the Generator for the Actions of an Independent Contractor

The plaintiff might name the generator as a defendant even though the generator of hazardous wastes has contracted out the disposal of those wastes to other parties and the wastes have been improperly disposed of. One reason is that it is not unlikely in toxic tort or hazardous waste litigation for the contractors to be judgment proof,[2] especially if the damage claim is a large one.[3]

The Restatement (Second) of Torts §409 states the general rule that a principal is not liable for physical harm caused by an act or omission of the contractor. However, this general rule has been limited by several exceptions: (1) when the principal has been negligent in selecting, instructing or supervising the contractor,[4] (2) the principal has non-delegable duties towards the public,[5] (3) the work is specially, peculiarly or inherently dangerous,[6] or (4) the work is likely to result in a trespass or nuisance.[7]

In order to fall within one or more of these exceptions, a plaintiff would want to differentiate cases involving hazardous wastes from less hazardous activities. Hazardous waste disposal has potential for great catastrophic harm, and the pollution may have irreversible effects;[8] for these reasons the public may best be served by imposing on the generator an especially high duty to insure the proper selection, instruction and supervision of the contractor.

A Louisiana court in Ewell v. Petro Processors of Louisiana, Inc.,[9] held the generator liable for property damage caused by chlorinated hydrocarbons escaping from a disposer's negligently constructed pits. The court recognized the general rule that a principal is not liable for the negligence of an independent contractor. Nevertheless, the court stated that a generator is responsible for taking adequate precautions and is liable for damages if it expressly or impliedly authorizes unsafe work.[10]

The inherently dangerous theory has been used in cases involving damages due to an independent contractor cropdusting in a negligent manner.[11] The courts base their rulings on the fact that cropdusting is inherently dangerous, and thus the employer should not be able to contract out the work and escape liability.[12] Cropdusting and hazardous waste disposal are closely analogous so it should be possible to establish that hazardous waste disposal is an inherently dangerous activity. However, in Ewell the court rejected a similar argument. The court recognized the rule that if work is inherently or intrinsically dangerous, an employer cannot avoid liability by letting the work out to an independent contractor. The rule did not apply because the record in the case did not convince the court that the work done by Petro Processors could not be done safely. Instead, the court concluded, "The damages suffered by the plaintiffs were due, not to the dumping of the toxic substances into the pits, but by the improper construction of one of those pits."[13]

The Restatement (Second) of Torts §427B states that "an employer is liable for any damages resulting from the employer's contracting out work likely to result in a nuisance or trespass." Although some experts feel "there is no such thing as a secure landfill"[14] and the dumping, as opposed to destruction, of toxic chemicals is only setting a time bomb,[15] no cases have been found in which a court has used §427B in litigation concerning hazardous waste disposal.

B. Stating A Cause of Action Against Generators and Landowners

Strict liability in tort law has greatly expanded, especially in product liability law.[16] Theories, analogous to those used in the product liability area, may develop and result in liability on the part of all parties engaged in hazardous waste disposal, including the generator of the wastes.[17]

Several parties can be involved in waste generation and disposal -- the generator, the transporter and owners of the disposal site. After hazardous waste has been buried on a disposer's property, it may take years for the wastes to spread to surrounding land and cause property damage or personal injury. If during this time, the ownership of the land has changed, the injured party might want to assert a claim against both the current and previous owners.

The remainder of this section is concerned with the liability of landowners (and lessees). Some questions should be kept in mind in regard to the liability of former and current landowners (lessees). Is the former owner more likely than the present owner to be held liable for conditions created by the current owner? Is a distinction made between the responsibility of a subsequent landowner for abatement of pollution originated by a former owner and the subsequent owner's liability for damages? Much of the law in this area is developing in actions by states and local governments; to what extent will the liability rules stated in those actions apply in actions brought by private party plaintiffs? Case law seems to place liability on former landowners for hazardous conditions unlike the general rule stated in the Second Restatement.

1. Former Owners who created the Condition and sold the Land

Under the Restatement (Second) of Torts, in both negligence[18] and nuisance[19] theories a vendor of land would be liable for an injury causing condition only until the vendee has discovered and abated or has had reasonable time to discover and abate the condition.

However, courts have found exceptions to the limitations on the vendor's liability. The New York Supreme Court in Merrick v. Murphy[20] allowed a cause of action against the former owner of land who had negligently created a dangerous condition on his land and then sold the land. The defendant had created a nuisance and caused the death of a driver on a road adjoining the defendant's property, by negligent demolition of a retaining wall and excavation of a shallow lake area.

> "The claim here is based solely on allegations of affirmative acts of negligence in the creation of a dangerous condition. ...Under this theory, ownership is immaterial and the fact that the defendant transferred... the property...does not render the complaint insufficient..."21

The holding in Merrick was based on two principles: (1) a person who creates an inherently dangerous condition upon real property bears the same responsibility for any injuries or damage resulting therefrom as would the manufacturer of an inherently dangerous or defective chattel and (2) legal responsibility under these circumstances does not depend upon ownership or possession of the property either at the time the act of negligence or the injury occurs.

A New Jersey Superior court in New Jersey v. Exxon[22] in which a former owner of land had created a nuisance by dumping oil onto adjoining property said: "The creator of a nuisance remains liable even after alienating his property."[23] Here again, the former owner's affirmative actions were deemed more important than the mere ownership of the land.

A later New Jersey opinion, New Jersey v. Ventron[24], involved the issue of a mercury processing plant that from 1929 to 1974, under three successive ownerships, discharged mercury that was leaking into the local groundwaters at unsafe levels The court, on strict liability grounds, found all three owners jointly and severally liable[25] for costs to abate the dangerous condition, despite the fact that a fourth (non-polluting) owner now owned the property.

2. Current Owners Who Have Bought From a Disposer

Restatement (Second) of Torts §839 and §366 state that the vendee of land is liable for abatement of dangerous conditions once a reasonable opportunity to discover the condition and abate it were allowed the present owner. However, because of the huge costs associated with abating the problems created by the leakage of chemicals from underground dump sites, courts are reluctant to impose liability on current, non-dumping owners.

In 1939, the first Restatement of Torts took the view that in a private nuisance action, a vendee is "required at his peril to make full inspection before he buys, and that as to all artificial conditions which are not latent, he assumes responsibility from the moment he takes possession, regardless of knowledge of the danger or of any opportunity whatever to guard against it."[26] An owner, under this view, becomes liable for non-latent hazards when he takes title. The rule imposed a very harsh obligation, making the owner liable for any failure to note patent hazards. The rule failed to take a position on latent hazards, such as buried drums containing toxic chemicals, which is a frequent latent hazard in early dump sites.

The Second Restatement of Torts, together with Prosser and other commentators, takes the view that a vendee becomes liable for a hazardous condition on his land only after he is given notice of the conditions, constructive or express, and has had a reasonable time to correct it.[27] A distinction is made by Prosser between landowners harboring a private nuisance and those harboring a public nuisance. In the case of a private nuisance, the vendee's liability may not commence until after he fails to abate the condition in response to a specific request.[28] "This is said to be because the vendee is entitled to assume, when he takes possession, that any existing private nuisance had the consent of the adjoining landowners, and that if compensation for it is required, it has been paid."[29] In the case of a public nuisance, a request to abate is not a prerequisite to liability, "because a public nuisance, being criminal in character and an invasion of the right of the public, cannot reasonably be assumed by anyone to exist with public consent."[30]

The Restatement (Second) of Torts, §§366 and 839 (1965) address this issue. Section 366 applied to artificial conditions existing when possession is taken.

> One who takes possession of land upon which there is an existing structure or other artificial condition unreasonably dangerous to persons or property outside of the land is subject to liability for physical harm caused to them by the condition after, but only after,
> (a) the possessor knows or should know of the condition, and
> (b) he knows or should know that it exists without the consent of those affected by it, and
> (c) he had failed, after a reasonable opportunity to make it safe or otherwise to protect such persons against it.

The Second Restatement thus imposes liability on the landowner only if he knows or should have known of the dangerous condition. In the case of latent defects, "the vendee or lessee may have enough in the way of information or warning to lead a reasonable man to investigate, so that he 'should know.'"[31] In a hazardous waste case, this could occur when the title search prior to purchase disclosed that the land was at one time owned by a chemical company or similar industrial concern putting the new owner on notice that an investigation for latent hazards is necessary. The care the vendee should give the investigation should reflect the nature of the prior use. "A greater amount of care is obviously required in inspecting an old building than it would be reasonable to expect if the building were newly erected by a reputable builder."[32] Similarly, former ownership by a chemical company may well point to the need for intensive inspection of the land more than former ownership by a less hazardous enterprise.

The Second Restatement also draws a distinction between situations where the vendee may reasonably assume that persons affected have consented to be exposed to the danger, and situations where such consent could not, reasonably, have been given. Consent may not be assumed in the case of public nuisance, such as that of safe travel on a highway.[33] Consent may be assumed in some private nuisance cases,[34] but the condition is imminently dangerous, threatening bodily harm to persons outside the land, evaluation of the danger may yield the conclusion that it is too substantial or chronic to need an express request to abate, since no reasonable person would give his consent to such an interference. It is enough that the landowner knows or should have known of the condition.[35]

The last prerequisite to liability under the Second Restatement's formulation is that the landowner have failed to abate the condition within a reasonable period of time. This "reasonable" period runs from the moment a request to abate has been made, or, in cases where no request is necessary, from the moment the owner knows or should know that the condition exists. This, however, is not the only duty of the landowner. "The one who takes possession may...be required to take such immediate protection as is reasonable, to persons outside of the land, as soon as he knows or should know of the condition. Even though repair of the condition may take some time, the possessor may be required in the interim to post a warning, or take such other steps as may be reasonable, for the protection of such persons, pending the repair or removal."[36] Restatement §366, comment a, recommends reference to Restatement §§839 and 821c which address liability for private and public nuisances, respectively, because the conditions addressed in §366 normally create a nuisance.

Section 839 of the Restatement (Second), applies to owners maintaining a nuisance not of their own making. Section 839, however, addresses invasion of other persons' interests in the use and enjoyment of land caused by the failure of a possessor of land to take affirmative action to protect another against harmful physical conditions on the possessor's land - comment d. Recognizing that personal injury is more serious than property damage, §839 imposes liability for a nuisance but only if such nuisance is abatable by reasonable means.[37]

Only a few cases that have dealt with the issue have followed the Restatement (Second). Dye v. Burdich[38] was an action for damages caused when the dam on defendant's land burst and flooded plaintiff's home. The dam had been built and was on the land when defendants purchased it four years prior to the accident. The court reversed a directed verdict for the defendant relying on §366 of the Restatement (Second) and holding that plaintiffs had established a prima facie case of defendant negligence in that they knew or should have known the dam was improperly built and inadequate, and failed to maintain or operate it in a prudent manner.[39]

Similarly, in City of Bridgeton v. B.P. Oil, Inc.[40], the plaintiff successfully recovered the costs of an oil spill from the lessee of land which had been used by the owner for oil storage prior to the commencement of the lessee's occupancy. Because the court was not certain which defendant was responsible for the construction of the facilities, reference to §366 was persuasive.

Two Pennsylvania cases that involved the violation of the state's water pollution control law rather than private tort claims followed a similar doctrine, without reference to the Restatement (Second). In Commonwealth of Pennsylvania v. Wyeth Laboratories,[42] the Commonwealth court determined that a current owner could be required to abate the pollution of state waters resulting from the previous owner's chemical waste dumping. The plaintiff in the case was the State of Pennsylvania. The original polluter of the land was the Borough of West Chester, Pennsylvania, which had used the site as a public dump and pest house prior to 1948.[43] Wyeth purchased the land from the Borough and presumably was aware of its then existing uses.[44] In 1956, at the request of West Chester Borough, Wyeth undertook pollution abatement efforts to control the effects of the Borough's previous dumping.[45] Though the complaint was based on the Pennsylvania Clear Streams Law,[46] the question of the liability of a current owner who had not created the hazardous condition was answered with reference to common law principles.[47] The court concluded that (as under §839) an owner is required to abate the nuisance only if the costs of abatement are not prohibitive.[48] The holding was influenced by the fact that Wyeth had complied with requests of public authorities to cope with one problem and did not aggravate the problem. In addition, the court held that the burden of showing that the abatement is reasonable is upon the plaintiff.[49]

The holding of the Wyeth case parallels the rule of the Restatement (Second) §839, with the added element of plaintiff's burden of proof. Note that the Wyeth case is limited in that it addressed liability for abatement and not the question of liability for personal injury or property damage to private parties.

The trend toward limiting the liability of successor landowners is illustrated by a recent Pennsylvania case, _Philadelphia Chewing Gum Corp. v. Commonwealth_,[50] which held that a non-polluting successor to land may be liable to abate a nuisance on that land, including paying for clean-up costs if some affirmative conduct is shown. In _Philadelphia Chewing Gum Corp._, the court held that if the owner (or lessee) knew, or should have known of the condition of the land, and also has by his conduct associated himself in a positive respect with the nuisance, beyond mere ownership or occupancy, the owner (or lessee) is responsible for abating the nuisance.

The case came to the court after Pennsylvania's Environmental Hearing Board had determined that properties owned by two defendants, Rogers and Philadelphia Chewing Gum Corp., contained pentachlorophenal mixed with oil that was being discharged on Rogers's land 20 years earlier by one of the defendants, National Wood Preservers, when it had been owned by Jacoby who later sold the business to the Goldstein family. The Environmental Hearing Board ordered the four current owners and leaseholders to abate the condition. On appeal from the Hearing Board, the Pennsylvania Commonwealth Court reversed the Board's order pertaining to Shell Corp., lessee of the property adjacent to the property from which the discharge originated, and the order pertaining to Philadelphia Chewing Gum Corp. The court found that Philadelphia Chewing Gum Corp., the landowner of property adjacent to the land where Jacoby dumped the chemical, neither knew about the condition nor associated nor adopted the condition in any way, and it was not held responsible for abating the condition. Shell Corp., one of Rogers's lessees, knew of the dumpings before entering a lease but engaged in no other oonduct indicating an association or adoption of the condittion. Therefore, the court said it would sustain Shell's appeal. Rogers, the owner of the land leased by Jacoby and then to the Goldstein family, was imputed to have knowledge of the condition, and twenty years of rent payments from an industrial tenant was considered to be a sufficient association to make Rogers liable for abatement of the condition. Wood Preservers, now owned by Goldstein, was held liable because the court found that Goldstein had engaged in affirmative conduct that indicated an adoption of the condition.

When Goldstein purchased Wood and was assigned the property by Jacoby, he was concerned that the property might be polluted so he obtained a warranty from Jacoby that no legal proceedings were pending or threatened, "except for a charge of stream pollution since cured." However, Jacoby subsequently was arrested for polluting, and Goldstein, who took some corrective measures, obtained a $35,000 credit from Jacoby in reduction of the purchase price. Based on these facts, the court concluded it was proper for the Board to have applied Pennsylvania's Clean Streams Law to Wood Preservers.

The Supreme Court of Pennsylvania affirmed the lower court's decision pertaining to Wood Preservers, holding that the Board's order was a constitutional exercise of the State Police power. The Pennsylvania Supreme Court noted that the corrective order directed to Wood was not just based on mere ownership or occupancy, but it also stated that the validity of an exercise of police power over land "depends little upon the owner or occupier's responsibility for causing the condition giving rise to the regulation," and gave examples of cases where regulations affected landowners in spite of the fact that they were not "responsible" for the factors giving rise to legal obligation, in any meaningful sense of that word. The basic question in such cases is whether the exercise of the police power is reasonable in light of the objective, means, and effect on the landowner.

New Jersey cases have also taken a similar approach. For example, in 1977 the New Jersey Superior Court found that failure to abate a nuisance created by a previous owner and known to the current owner did not constitute negligence and did not subject the current owner to liability.[51] The case, New Jersey Department of Environmental Protection v. Exxon Corp. and I.C.I. America, Inc., follows the same reasoning as Philadelphia Chewing Gum. Defendant I.C.I. America, Inc. owned land in an industrial area long used by defendant Exxon and others for refining, storing and shipping oil. Although not stated in the stipulation of facts, one can reasonably infer that I.C.I. was aware prior to its purchase that the land was soaked with oil to a considerable depth. New Jersey sought to make I.C.I. liable for discharge of oil in violation of N.J.S.A. 58:10-23.4 and liable, in the alternative, for the maintenance of a nuisance. The oil-soaked soil was now causing heavy accumulation of oil in the storm water drainage systems serving the surrounding areas.

The court began its analysis by stating that "liability for nuisance must be premised upon a showing that the conduct in question was intentional or negligent, or that it came within the principle of strict liability."[52] The court dismissed each of these bases. There had been no contention of intentional wrongdoing and the claim of strict liability was dismissed because I.C.I. had not engaged in any ultrahazardous activity once it took possession of the land.[53] Negligence, the usual standard applied to cases involving failure to act affirmatively to abate a nuisance was dismissed as inappropriate "because (I.C.I.) has not caused the condition in issue."[54] Further,

> A person is not civilly liable for a nuisance caused or promoted by others over whom he has no control and such person is not bound to incur the expense to abate such a nuisance. 58 *Am. Jur. 2d*, *Nuisances*, §24 (1971); 66 *C.J.S. Nuisances* §8b (1950); *Tennessee Coal, Iron & R Co. v. Hartline*, 244 Ala. 116, 11 So. 2d 833 (Sup. Ct. 1943). 55

Nevertheless, the Court strongly felt that fairness dictated that Exxon, the former owner, be responsible for the cost of abatement.[56] The Court seemed to believe that Exxon was the more appropriate defendant, and seemed puzzled by the State's failure to compel Exxon to abate, though the Court would "not question the wisdom of (the State's) choice."[57] The Court noted that a vendor of land may in some circumstances be liable after transfer of title, for creating and maintaining a nuisance.[58] The implication, though, that continuing liability of the vendor precludes liability of the vendee, is not warranted.[59] Nevertheless, the apparent inequity of charging the current owner with the costs of abating a nuisance created by a still existing entity, capable itself of paying these costs, seemed to persuade the Court.

Statutory Developments

At least eight states have enacted legislation imposing liability for a nuisance upon a later owner not responsible for its creation.[60] Typical of the language used is California's provision, which reads:

> Every successive owner of property who neglects to abate a continuing nuisance upon, or in the use of such property, caused by a former owner, is liable therefor in the same manner as the one who first created it.[61]

Older case law interpreting these statutes often required that the successive owner have both notice of the condition upon his land and have failed to abate the nuisance in response to a specific request.[62] For example, the California statute has been construed as requiring notice or knowledge on the part of the successive owner.[63]

In New Jersey v. Ventron, the court cited the Exxon decision in holding no cause of action could be maintained against defendant Wolf, a real estate developer and current owner of the site for paying for the clean-up costs of mercury that was spreading from his land, due to the fact that a mercury-processing plant had previously been on the land, and dumped mercury into the site. This court held that mere ownership, without affirmative acts allowing or promoting the pollution, was not enough to create liability.

III. APPORTIONMENT

After establishing causes of action against several parties, such as several generators dumping at the same site, the plaintiff must prove how the damages should be apportioned, or have a legal theory which shifts the burden of apportionment to the defendants.

A. Comparisons of Apportionment Issues in DES and Toxic Spill Cases

Few cases in hazardous waste litigation discuss apportionment among several generators dumping at the same site.[64] One likely explanation for this is that legal causation is so difficult to prove in a toxic tort case that few cases have reached the apportionment issue.[65] For this reason, many of the examples used in this section are based on analogies to cases involving diethylstilbestrol (DES). DES is a synthetic estrogen which was prescribed for 1-1/2 to 3 million pregnant women from 1947 to 1971,[66] and has been linked to cancer in the daughters of the mothers who ingested the drug.

There are many similarities between DES and toxic waste litigation. In both, the injury does not appear until a significant length of time has passed. Causation problems appear in both types of cases since physiological disorders are impossible to trace with complete certainty. The identification of defendants is difficult due to lapse of time and loss or disposal of records. Despite the similarities, there are also differences in the types of cases. There are only 200 DES manufacturers, while the number of hazardous waste generators in this country is much higher; there are thousands of generators who have contributed to the toxic waste problem.[67] Also the drug industry showed signs of cooperation and standardization in DES production and testing, while toxic waste disposal is not nearly as uniform and unvaried. Finally, most DES cases are based on a products liability theory, and although there has been discussion of a products liability cause of action in hazardous waste cases, it is likely that such an action will be based on other theories.

B. Traditional Tort Theories of Apportionment

Normally, the plaintiff has the burden of producing evidence which affords a reasonable basis for the conclusion that it is more likely than not that the conduct of the defendant was a substantial factor in bringing about the result.[68] When manufacturers have produced the same generic drug, DES, or several toxic waste generators have improperly disposed of poisonous chemicals, it is very unlikely, if not impossible for the plaintiff to carry this burden. And, in DES cases because of this inability to prove that a specific manufacturer made the drug which the plaintiff's mother ingested while plaintiff was a fetus, summary judgement for the defendant has been granted in Texas,[69] California[70] and most recently in New Jersey.[71]

C. Apportionment Theories That Shift Burden of Proving Causation onto the Defendants

Courts in other DES cases have not granted summary judgment for the defendant, but rather have shifted the burden of proof of apportionment to the defendants.[72] Tort law has four theories that allow a plaintiff to join multiple defendants who have in some way contributed to the conditions that have caused plaintiff's injury. The four theories shift the burden of proof of apportionment onto the defendants once the plaintiff has stated and proved a cause of action against the defendant. The theories are concert of action, alternative liability, market share liability and enterprise (or industry-wide) liability.

1. Concert of Action

One is subject to liability if he does a tortious act in concert with others or pursuant to a common design.[73] To act in concert, the defendants need not have expressly agreed upon their plan, but rather the agreement may be implied from the conduct of the actors.[74] Defendants joined under a concert of action theory are jointly and severally liable for all the injuries to the plaintiffs.[75] An example of concert of action is a drag race between two drivers, A and B, where A hits a pedestrian and the pedestrian sues both A and B as jointly and and severally responsible.

The policy behind concert of action appears to be to prevent antisocial behavior by groups of persons, by holding liable all those connected with the action.[76] The theory has been applied to manufacturers of DES when the plaintiff was unable to identify the specific brand of DES ingested by her mother.[77]

Cooperation among drug companies in testing DES in the 1940's was a main reason stated by the court in finding concert of action.[78] The issue for plaintiffs suing multiple polluters will be whether the negligent practices of several companies can be considered "in concert" with one another without evidence of an agreement other than an inadequate industry standard for toxic chemical disposal. If following the same standard is acting in concert, any or all of the companies adhering to it will be liable for all injuries to the plaintiffs. Plaintiffs in DES litigation have had mixed results using a concert of action theory of apportionment. A New York court in Bichler v. Eli Lilly and Co.[79] and a Michigan court in Abel v. Eli Lilly and Co.[80] found the theory acceptable. However, the California Supreme Court in Sindell v. Abbott Laboratories[81] rejected the idea that the mere cooperation between drug companies is a basis for applying concert of action apportionment when the plaintiff is unable to specifically name the producer of the drug ingested by her mother.[82]

Concert of action liability has not yet been used in a hazardous waste case, and the DES cases may be stronger cases for application of a concert theory. There are fewer manufacturers and more direct interaction in the drug industry than there is in the chemical disposal industry. Thus, the difficulty of proving tacit understanding in DES cases which in several cases led to directed verdicts for the defendants,[83] would be magnified for plaintiffs in toxic pollution.

2. Alternative Liability

Alternative liability is a widely, although not universally, accepted theory. The Restatement (Second) of Torts approves of it.[84] It allows a plaintiff to recover against several non-concerting tortfeasors. The traditional alternative liability theory was applied by the California Supreme Court in Summers v. Tice.[85] In that case, two hunters, while aiming at a quail fired negligently and simultaneously in plaintiff Summers's direction. One shot, and only one shot hit Summers in the eye. In the suit for damages, Summers had no way to prove which defendant's shot had hit him. Rather than dismiss the suit because the plaintiff was unable to carry the traditional tort burden of proof as to who had caused the harm to the plaintiff, the court switched the burden to the defendants to prove that they had not created the injury to Summers. Because neither defendant was able to prove that the other defendant had injured Summers, defendants were jointly and severally liable.

Alternative liability is based on the principles that it would be unjust to permit proven wrongdoers, one of whom has inflicted an injury upon an innocent plaintiff, to escape liability merely because the nature of their conduct has made it impossible or difficult to prove which of the defendants has caused the harm,[86] and that it is better for a tortfeasor to overpay than to make an innocent plaintiff bear the entire cost of the injury.[87]

One DES case has relied on alternative liability to hold the manufacturers of DES jointly and severally liable. In Abel v. Eli Lilly & Co., the court reversed a lower court's ruling dismissing the case for a plaintiff unable to specifically identify the brand of DES which her mother had taken. The court, citing Summers, imposed joint and several liability because the plaintiff, although unable to name the specific manufacturer, had joined all the manufacturers of DES that had distributed DES in the Michigan area. Thus, the burden of proof could be shifted to the defendants to prove that they had not caused the injury.

Alternative liability has been used also in several cases where more than one tortfeasor has caused some part of the total damage. In Landers v. East Texas Salt Water Disposal Co.[88] joint and several liability was placed on the two owners of separate salt water pipe lines that had broken at approximately the same time, and the salt water damaged plaintiff's land and fish pond. Both defendants, acting independently, had been negligent in allowing their pipelines to burst and, of course, the first pipe to burst had caused most of the damage. However, due to the remoteness of the site, it was impossible for the plaintiff to determine which defendant's negligence was responsible for the majority of the damage. The court placed the burden of apportionment onto the defendants, and both were liable for all the damages since they could not prove which pipe had burst first.

There is a similar case involving water runoff from defendants' fields that included salt, oil and acid which polluted irrigation ditches used by rice farmers. The injury was not discovered until the rice crops had died, thus the timing and accurate determination of the cause of the pollution was not possible. Here again, the court put the burden of proving apportionment of the damages on those defendants whom the plaintiffs had proven to have been negligent in allowing some pollution to enter the irrigation ditches.[89]

Another type of case where alternative liability has been applied is when several actors have caused an injury that is theoretically divisible but practically indivisible.[90] Hazardous waste pollution with a number of discharges caused by several actions will fit in this category.[91] An example of a case applying this alternative liability when the injury is only theoretically divisible in theory is Borel v. Fibreboard Paper Products Corp.[92] In Borel, an industrial worker who, through his employment had come into contact with several different brands of asbestos, was allowed to join all the manufacturers as defendants after he had proven them all negligent by omitting to supply him with adequate information regarding the dangers of inhaling asbestos dust. The worker, after 33 years of employment, had contracted asbestosis, and despite the defendants' claim that the plaintiff must bear the burden of proof in showing which defendant had caused what part of the damage, the court, citing Landers, upheld joint and several liability upon all defendants, provided the defendants could not prove they could not have caused the damage.

Alternative liability, whether applied to a fact situation like Summers where several tortfeasors were involved in an action but only one did in fact cause injury to the plaintiff, or to a situation like Landers where more than one non-concerting defendant has caused a part of the injury, or to a Borel situation where several tortfeasors combined to create an injury that was theoretically but practically indivisible does have important limitations. The plaintiff must have successfully stated a cause of action against all potential defendants. Failure to join all potential defendants would create the possibility of some or all defendants being unable to prove that they had not caused the injury, and it would be pure and undisguised speculation to assume that any of the named defendants had caused the plaintiff's harm.[93] Therefore, if one of the polluters has gone out of business, or proper jurisdiction cannot be obtained over one of the generators of the toxic wastes, alternative liability will not be applied.[94]

3. Market Share Liability

In an effort to ease the restriction on alternative liability that demands all potential injury causers be joined before shifting the burden of proof of causation, the California Supreme Court in Sindell proposed a market-share liability theory.

The facts of the case were that the plaintiff, a victim of cancer due to her mother's ingestion of DES, was unable to name the specific manufacturer of the DES which her mother had taken. She therefore joined eleven of the major manufacturers of the drug and sued for relief.

The court would not apply alternative liability since the plaintiff had not joined all 200 potential producers of the DES prescribed to her mother. Neither would the court apply a concert of action theory since, according to the court, the plaintiff could not prove an understanding between all defendants to act in a particular manner.[95] The court also rejected enterprise liability as being non-applicable.[96]

However, rather than dismiss the case for plaintiff's failure to prove causation against any one defendant, the court applied a market share liability theory. Relying on the Summers case and the Restatement (Second) of Torts §433 as a basis, the court shifted the burden of proof of causation to each manufacturer. Unlike alternative liability, the manufacturer would not be held jointly and severally liable for the entire injury if the manufacturer was unable to prove that the plaintiff's mother had not ingested DES produced by it. Rather, each defendant, unable to prove that plaintiff's injury was not caused by it, would be liable for a percentage of the plaintiff's injury. The percentage of liability for the injury would be the percentage of the market of each DES that each defendant was responsible for selling.

The court reasoned that if a corporation was responsible for 15 percent of all DES sold, it was responsible for 15 percent of all DES related injuries, and thus even though a plaintiff could not prove in fact that a particular manufacturer had marketed the drug which caused plaintiff's injury the defendant, in the long run, after several cases using a market share theory, would pay for the damages which it had caused.

Market share liability, like alternative liability, allows an innocent plaintiff to get relief from defendants, against whom a cause of action has been stated, even if the plaintiff cannot give evidence proving which defendant actually caused in fact the injury. Also, like alternative liability, the burden of proof of apportionment shifts to the defendants. The difference between market share liability and alternative liability is that where the alternative theory requires that all potential injury causers be joined, the market share theory only requires that the joined defendants make up a substantial percentage of the market.[97]

Market share liability is not without its critics.[98] It will shift the burden of proof onto the defendants, even when the defendants have access to no more information than does the plaintiff.[99]

4. Enterprise Liability

Enterprise liability combines features of alternative and concert of action theories for proof of causation of an injury. Judge Weinstein in Hall v. E.I. Dupont De Nemours & Co., Inc.[100] discussed a theory of enterprise liability on an industry-wide basis. The case involved suits against manufacturers and a trade association. In separate incidents, children had been injured by the blasting caps due to inadequate warnings and inadequate safety features. In the cases where the specific manufacturer could not be identified, Weinstein suggested that enterprise liability may be applicable in order to place joint liability upon the manufacturers.

Citing workmen's compensation, respondeat superior, and strict liability, the court said that public policy may call for liability to be placed on those best able to distribute the costs of the risks.[101] The plaintiff must prove both defendants' awareness of the risk and the defendants' joint ability to reduce and eliminate the risk.[102] Assuming a cause of action has been stated, the burden of proof of causation of injury may then be shifted from the plaintiff to the defendant. Similar to the concert theory, enterprise liability requires some industry-wide standard followed by the defendants. It need not be an expressly agreed upon standard. Like alternative liability, it allows the burden of proof of causation for an indivisible injury to be switched onto the joined defendants. Unlike alternative liability, and similar to the market share approach, enterprise liability would not require all the potential injury-causers to be joined.[103]

The policy behind enterprise liability is that the industry, as a whole, not the individual corporation, should pay for damages that cannot be traced back to one defendant with certainty where an industry, through similar tortious practices has created risks, such as inadequate disposal of toxic wastes.[104]

Pressures of market competition often create industry wide standards.[105] When these standards are inadequate, an individual who has been injured by an unidentified member of the industry should not bear the burden of the injury, but rather the negligent industry should bear the costs of the injury. In theory, spreading the additional costs to the industry may make the industry upgrade its practices and thus prevent future injuries.[106]

Enterprise liability has not been imposed by courts in DES cases. The Hall opinion itself states that enterprise liability may not be applicable to a larger number of manufacturers in a decentralized industry.[107] The California Supreme Court in Sindell expressly rejected it, as have courts in Michigan[108] and New Jersey.[109]

IV. Conclusion

Few cases on liability for hazardous waste damages have been fully litigated. Therefore, any plaintiff in a toxic tort case will be treading on relatively new ground. Actual recovery of damages in toxic waste cases and DES cases have occurred rarely. Some of the DES and toxic waste opinions cited in this memorandum were on appeals from summary judgments, and the appellate courts, in not dismissing the cases, said there was a possibility that the plaintiffs could prove their allegations.

The theories discussed in stating a cause of action against generators and successive owners are more developed than are the theories of apportionment, especially market share liability and enterprise liability on an industry-wide basis.

It is still extremely difficult for a plaintiff in a toxic tort case to spread the costs of his injuries to defendants who are not positively identified as causative agents for specific portions of the damages or injuries.

FOOTNOTES

1. *See generally* Note, "Pursuing a Cause of Action in Hazardous Waste Pollution Cases", 29 Buffalo L. Rev. 533 (1980) and Ginsberg & Weiss, "Common Law Liability for Toxic Torts: A Phantom Remedy", 9 Hofstra L. Rev. 859 (1981).

2. The fact that there are thousands of facilities around the country, "Liability for Clean-Up of Inactive Hazardous Waste Disposal Sites", *Hazardous Waste Litigation* 11 (Practising Law Institute, Mott ed. 1981), shows that the industry is not centralized and there are many smaller disposers in existence.

3. Large damage claims are possible. The Love Canal litigation has claims of over 2.5 billion dollars. Note, "Allocating the Costs of Hazardous Waste Disposal," 94 Harv. L. Rev. 584, 586 (1981).

4. Restatement (Second) of Torts §409, Comment b (1977).

5. *Id*.

6. *Id*.

7. Restatement (Second) of Torts §427B (1977).

8. Page, "A Generic View of Toxic Chemicals and Similar Risks", 7 Ecology L.Q. 207 (1978).

9. 364 So. 2d 604 (La. Ct. App. 1978).

10. *Id*. at 606-607.

11. 37 A.L.R. 3d 833 §4 (1971).

12. Gotreaux v. Gary, 232 La. 373, 94 So. 2d 293 (1957), Jones v. Morgan, 96 So. 2d 109 (La. Ct. App. 1957), Loe v. Lenhardt, 227 Or. 242, 362 P. 2d 312 (1961), J.L. Wilson Farms, Inc. v. Wallace, 590 S.W. 2d, 42 (Ark. App. 1979), Langan v. Valicopters, 88 Wash. 2d 855, 567 P. 2d 218 (1977).

13. 364 So. 2d at 607.

14. "Storm, earthquakes, floods, burrowing animals, tree roots household pets and human error all contribute to the conclusion that there is no such thing as a 'secure landfill'". Ginsberg & Weiss, *supra* note 1, at 868, citing Hearings on Love Canal before the New York State Senate Comm. on Environmental Conservation, Senate Subcomm. on Toxic Substances and Chemical Waste, Assembly Environmental Conservation Comm.

Task Force on Toxic Substance, and Inter Agency Task Force on Hazardous Wastes, at 352 (Statement of C.N. Richardson).

15. *Id.*

16. In PROSSER, LAW OF TORTS §75 at 494 (4th ed. 1971) a similar idea is expressed. "The courts have in effect recognized a new doctrine, that the defendant's enterprise, while it will be tolerated by the law, must pay its way" when the activity is abnormally dangerous.

17. Note, "Strict Liability for Generators, Transporters, and Disposers of Hazardous Wastes", 64 Minn. L. Rev. 949, 977-985 (1980).

18. Restatement (Second) of Torts §373.

19. Restatement (Second) of Torts §840A.

20. 83 Misc. 2d 39, 371 N.Y.S. 2d 97 (Sup. Ct. 1975).

21. *Id.* at 41, 371 N.Y.S. 2d at 100.

22. 151 N.J. Super. 464, 376 A. 2d 1339 (Sup. Ct., Ch. Div. 1977).

23. *Id.* at 485, 376 A. 2d at 1349-50.

24. No. C-2996-75 (Super. Ct., Ch. Div. Bergen Co., Aug. 27, 1979), *aff'd modified and remanded* 182 N.J. Super. 210 (App. Div. 1981).

25. W.R.C.C. and Berk, the two successive owners of the plant and property were held jointly and severally liable. Ventrol and Velsicol, the two successive parent corporations of W.R.C.C. were held severally liable in equal amounts for W.R.C.C.'s amount of the damages.

26. PROSSER, *supra* note 16, §64 at 414 (4th ed. 1971) cites "some very dubious" dictum in Harvey v. Machtig, 73 Cal. App. 667, 239 P. 78, (1925), and Palmore v. Morris, Tasker & Co., 182 Pa. 82, 37 A. 995 (1897), as the sole authority supporting the First Restatement position. *Id.* at §64, p. 414 n. 80.

27. *See, e.g., id.* §64, p. 414-15. See also Restatement (Second) of Torts §§366, 839 (1965); Mott, "Liability for Clean-Up of Inactive Hazardous Waste Disposal Sites", *supra* note 2, at 76-79.

28. PROSSER, supra note 16, §64 at 414-15.

29. Id.

30. Id. at 415.

31. Restatement (Second) of Torts §366, Comment c (1965).

32. Id., Comment d.

33. Id., Comment f.

34. Id.

35. Id.

36. Id., Comment g.

37. "By an 'abatable physical condition' is meant one that reasonable persons would regard as being susceptible of abatement by reasonable means. The law does not require the unreasonable or fantastic, and therefore even though it might conceivably be possible to abate a particular condition, it is not 'abatable' within the meaning of this section unless its abatement can be accomplished without unreasonable hardship or expense." Id. at Comment f. Thus, it is conceivable that a plaintiff might successfully wrest damages for personal injury from a current owner of a non-abatable nuisance while being denied compensation for property damage.

38 262 Ark. 124, 553 S.W. 2d 833 (1977).

39. Id. at 838.

40. City of Bridgeton v. B.P. Oil, Inc., 146 N.J. Super. 169, 369 A. 2d 49 (1976).

41. Id. at 52.

42. Commonwealth of Pennsylvania v. Wyeth Laboratories, Division of American Home Products Corporation, 12 PaC 227, 315 A. 2d 648 (Pa. Cmmwth. 1974).

43. "Act of June 22, 1937, P.L. 1987, as amended, 35 P.S. sect. on 691.401 (Supp. 1973-1974)," id. at 230, 315 A. 2d at 649.

44. Id. at 229, 315 A. 2d at 649.

45. Id. at 229, 315 A. 2d at 650.

46. Id. at 230, 315 A. 2d at 650.

47. Id. at 236-240, 315 A. 2d at 653-655.

48. Id. at 236, 315 A. 2d at 653.

49. Id. at 239-240, 315 A. 2d at 655.

50. 35 PaC 443, 387 A. 2d 142 (1978), aff'd sub nom, National Wood Preservers, Inc. v. Commonwealth of Pennsylvania Department of Environmental Resources, 414 A. 2d 37 (Pa. 1980). Each member of the panel hearing this case was present on the Wyeth bench.

51. State of New Jersey, Department of Environmental Protection v. Exxon Corp. and I.C.I. America, Inc., supra note 22.

52. Id. at 483, 376 A. 2d at 1349.

53. Id. at 484, 376 A. 2d at 1349.

54. Id. at 483, 376 A. 2d at 1349.

55. Id. The Tennessee Coal case cited by the court as authority, however, was not on point. It concerned injuries incurred by a passerby when trespassers on defendant's land engaged in blasting.

56. New Jersey Department of Environmental Protection v. Exxon Corp. and I.C.I. America, Inc., supra note 22, at 485, 376 A. 2d at 1350.

57. Id.

58. Id. See State v. Ole Olsen Ltd., 38 A.D. 2d 967, 331 N.Y.S. 2d 761 (App. Div. 1972).

59. See PROSSER, supra note 16, §64.

60. Cal. Civ. Code §3483 (West 1980); Idaho Code §52-109 (Bobbs-Merrill 1981); Mont. Code Ann. §27-30-105 (1979); N.D. Cent. Code §42-01-13 (Smith 1979); Okla. Stat. Ann. tit. 50, §5 (West 1980); Wash. Rev. Code Ann. §7.48.170 (West 1980).

61. Cal. Civ. Code §3483 (West 1980).

62. See, e.g., Grigsby v. Clear Lake Water Works Co., 40 C. 396 (Calif. 1870); Daniels v. St. Louis & S.F.R. Co., 36 Okl. 421, 128 P. 1089 (Okl. 1913); Great Northern R. Co. v. Oakley, 135 Wash. 279, 237 P. 990 (Wash. 1925).

63. Reinhard v. Lawrence Warehouse Co., 41 C.A. 2d 741, 745-46, 107 P. 2d 501, 504-05 (1941). The Court interpreted "neglect" to require intent, which presupposes knowledge.

64. "[Ventron] represents one of the first judicial attempts to deal with the complex and intriguing legal questions associated with the improper disposal of hazardous wastes over an extended period of time..." Tasher, "Technical Elements of the Government's Case" in *Hazardous Waste Litigation*, *supra* note 2, at 216-217.

65. Senate Comm. on Environment and Public Works, 96th Cong., 2d Sess., *Report on Six Case Studies of Compensation for Toxic Substances Pollution: Alabama, California, Michigan, Missouri, New Jersey, and Texas* 487-490 (Comm. Print 1980).

66. Comment, "DES and a Proposed Theory of Enterprise Liability", 46 Fordham L. Rev. 963, 964-67 (1978).

67. Mott, "Liability for Clean-up of Inactive Hazardous Waste Disposal Sites," *supra* note 2, at 11.

68. PROSSER, *supra* note 16, §41.

69. Gray v. U.S., 445 F. Supp. 337 (S.D. Tex. 1978).

70. McCreery v. Eli Lilly and Co., 87 Cal. App. 3d 77, 150 Cal. Rptr. (1978).

71. Namm v. Frosst, 178 N.J. Super. 19 (Sup. Ct. App. Div. 1981).

72. The courts have placed the burden of proof on the defendant by relying on theories of alternative liability, concert of action, and market share liability. For further discussion, see text following this footnote.

73. Restatement (Second) of Torts §876(a).

74. Id., §876, Comment on Clause d.

75. Comment, "DES and a Proposed Theory of Enterprise Liability", *supra* note 66, at 978.

76. Lyons v. Premo Pharmaceutical Labs., Inc., 170 N.J. Super. 183, 193, 406 A. 2d 185, 190 (Sup. Ct. App. Div. 1979).

77. Bichler v. Eli Lilly and Co., 436 N.Y.S. 2d 625 (App. Div. 1981), *aff'd* No. 244 (N.Y. Ct. App. May 11, 1982); Abel v. Eli Lilly and Co., 94 Mich. App. 59, 289 N.W. 2d 20 (Ct. App. 1979).

78. Bichler v. Eli Lilly and Co., *id.* at 633.

79. 436 N.Y.S. 2d 625 (App. Div. 1981).

80. 94 Mich. App. 59, 289 N.W. 2d 20 (Ct. App. 1979).

81. 26 Cal. 3d 588, 607 P. 2d 20 (Ct. App. 1979).

82. *Id.* at 605, 607 P. 2d at 933, 163 Cal. Rptr. at 140.

83. *See* Comment, "DES and a Proposed Theory of Enterprise Liability", *supra* note 66, at 985.

84. Restatement (Second) of Torts §433B(3).

85. 33 Cal. 2d 80 (1948).

86. Restatement (Second) of Torts §433B, Comment f (1977).

87. Huddell v. Levin, 537 F. 2d 726, 746 (3d Cir. 1976).

88. 189 F. 2d 205 (5th Cir. 1951).

89. Phillips Petroleum v. Hardee, 189 F. 2d 205 (5th Cir. 1951).

90. An analogy can be made to automobile crashes involving multiple defendants. The injury suffered by the plaintiff is often theoretically divisible, but in practice is impossible to divide. Courts have shifted the burden of apportioning the damages onto the defendants. *See* 100 A.L.R. 2d 16 §9[a], Fugue v. Pierce, 5 Wash. App. 592, 597-99, 490 P. 2d 132, 135-36 (Ct. App. 1971).

91. Senate Comm. on Environment and Public Works, 96th Cong., 2d Sess., *Report on Six Case Studies of Compensation for Toxic Substances Pollution*, *supra* note 65, at 491.

92. 403 F. 2d 1076 (5th Cir. 1973).

93. Namm v. Frosst, *supra* note 71, 178 N.J. Super. at 31-32.

94. Sindell v. Abbott Laboratories, 26 Cal. 3d 588, 602, 607 P. 2d 924, 930-31, 163 Cal. Rptr. 132, 138-39 (1980).

95. *Id.* at 605, 607 P. 2d at 933, 163 Cal. Rptr. at 140.

96. *See* discussion of enterprise liability *infra*. The court also questioned the authority of Hall, and found it determinative that Hall involved an industry with only six manufacturers, while DES marketing in California was by over two hundred drug companies.

97. Sindell v. Abbott Laboratories, supra note 94, at 612, 607 P. 2d at 937.

98. See dissenting opinion in Sindell, 26 Cal. 3d 588, 614, 607 P. 2d 924, 938, 163 Cal. Rptr. 132, 146 (1980).

99. Id. at 614, 607 P. 2d at 938, 163 Cal. Rptr. at 146.

100. 345 F. Supp. 353 (E.D.N.Y. 1972).

101. 345 F. Supp. at 376.

102. 345 F. Supp. at 378.

103. 345 F. Supp. at 379 and Comment, "DES and a Proposed Theory of Enterprise Liability," supra note 66, at 995.

104. Comment, "DES and a Proposed Theory of Enterprise Liability," supra note 66, at 1002.

105. Hall, supra note 100, 345 F. Supp. at 374. See also 1 Frumer & Friedman, Products Liability §5.04 (1970 rev.).

106. Note, "Allocating the Costs of Hazardous Waste Disposal," supra note 3, at 586.

107. Abel v. Eli Lilly and Co., supra note 77, 94 Mich. App. at 77, 289 N.W. 2d at 32-33.

108. Namm V. Frosst, supra note 71, at 34-35.

109. Hall, supra note 100, 345 F. Supp. at 378.

D.

FEDERAL STATUTES PROVIDING COMPENSATION FOR INJURIES AND DAMAGE TO PROPERTY AND NATURAL RESOURCES

TO: Superfund §301(e) Study Group

FROM: Frank P. Grad, Reporter

RE: Federal Statutes Providing Compensation for Injuries and Damage to Property and Natural Resources

DATE: December 1, 1981.

Several Federal statutes provide benefits to individuals for personal injury or property damage caused by the actions of others. These remedial statutes can be classified into three groups: those providing compensation to any individual without regard to the cause of injury; those providing benefits to particular groups of individuals for injuries arising out of a particular activity; and those providing compensation to anyone injured as a result of a particular type of incident. The remedial statutes comprising each group will be outlined below.

A. Statutes of General Application

1. Social Security Disability Insurance, 42 U.S.C. §§401-431

Social Security Disability Insurance (SSDI) provides for payment of benefits to any qualifying individual who can show he is totally disabled. A qualifying individual is any person who has not attained the age of 65 and who is insured for benefits under the system. This insurance coverage is triggered by payment into the system for a required number of quarterly periods, basically one quarter for each calendar year after the individual attained the age of 21 with a six-quarter minimum. 42 U.S.C. §423.

On a showing of disability, defined as the "inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to last for a continuous period of not less than twelve months," 42 U.S.C. §423(d)(1), and after a five-month waiting period (with exceptions) insurance benefits are paid. These benefits are paid from a trust fund and are determined by reference to previous wages and present earnings. Generally, eligibility requirements have been strictly followed, restricting the number of individuals who qualify for benefits. Trauberman, Compensating Victims of Toxic Substances Pollution: An Analysis of Existing Federal Statutes, 5 Harv. Envt'l L. Rev. 1, 8 (1981)(hereinafter cited as Trauberman).

2. Medicare and Medicaid

a) Medicare, Title XVIII, 42 U.S.C. §1395 et seq.

Medicare provides health insurance for the aged and disabled. Its coverage extends to individuals 65 or over who are entitled to Social Security retirement benefits (entitlement is based on payment into the system) and to those under age 65 who have been entitled to disability insurance benefits, "for not less than 24 consecutive months." Benefits include payment for in-patient hospital services (up to 150 days for any one spell of illness), payment for post hospital extended care service (100 days for any spell of illness), payment for up to 100 home health service visits for any one spell of illness, §1395(d). Supplementary medical insurance benefits are available to the aged and disabled who elect to enroll in the program by paying premiums. Id.

b) Medicaid, Title XIX, 42 U.S.C. §§1396-97

Medicaid provides grants to states for medical assistance programs for certain categories of economically disadvantaged persons. These programs are designed to provide medical assistance on "behalf of families with dependent children and of aged, blind or disabled individuals whose income and resources are insufficient to meet costs of necessary medical services," 42 U.S.C. §1396(a), and to assist such families and individuals with rehabilitation and other services so that self-care is possible in the future, 42 U.S.C. §1396(b).

Payments are made to states with qualifying programs. A program qualifies if it is targeted on particular groups, (which include individuals who receive assistance under other welfare programs) and if other administrative standards are met (e.g., a state agency must exist with power to set health standards, 42 U.S.C. §1396a). The federal payment is set as the federal medical assistance percentage, which is based on a ratio of the state's average per capita income to the national average per capita income. 42 U.S.C. §1396(b). The program is aimed, then, at providing medical assistance to certain persons whose income and resources are insufficient to meet medical costs, sometimes referred to as the medically indigent.

In addition to the grants for general medical assistance and rehabilitation services, states receive grants based on specific percentages of cost, for programs to furnish services aimed at reducing dependency and promoting self-sufficiency, such as family planning and community-based care programs. 42 U.S.C. §1397.

B. Statutes Aimed at Particular Groups of Individuals or Particular Activities

1. Black Lung Benefits, 30 U.S.C. §§901-941, 951, 958

The Black Lung Benefits Act was designed to provide benefits to miners who are totally disabled by pneumoconiosis and to surviving dependents of those whose death was due to the disease or dependents of those who were totally disabled at the time of death. Benefits under the Act are provided through a variety of mechanisms including payments from federal funds, payments under state workmen's compensation laws and payments made directly by mine operators.

For claims filed before December 31, 1973, payments are made by the federal government acting through the Department of Health and Human Services (Health, Education and Welfare when the Act was passed). The Secretary of HHS has the power to define disability by regulation. Those who fall within this definition can file for benefits and are then aided by several presumptions about the nature of the disease and its causation. First, if a miner who suffers from the disease establishes that he was employed in a mine or mines for ten or more years, there is a rebuttable presumption that the disease arose from that employment. Second, if it is established that a deceased miner was employed ten or more years in a mine or mines and that he died of a respiratory disease, there is a rebuttable presumption that death was due to pneumoconiosis. Third, if a miner suffers from a chronic dust disease of the lung diagnosed by a chest x-ray showing opacities of a particular type or if diagnosed by autopsy or biopsy which yields massive lesions or by other means that would yield the same result, an irrebuttable presumption exists of total disability due to pneumoconiosis. Fourth, if a miner has been employed for 15 years or more in a mine or mines and the medical standards outlined above are not met, but other evidence demonstrates the existence of a totally disabling respiratory or pulmonary impairment, a rebuttable presumption is created that total disability or death is due to pneumoconiosis (a wife's affidavit is insufficient evidence if the miner is living). The presumption may be rebutted only if the Secretary can show either that the miner did not have pneumoconiosis or that the impairment did not arise out of employment. Finally, survivors of a miner who died before March 1, 1978 and who was employed in a mine or mines for 25 years or more prior to June 30, 1971 are entitled to benefits unless it is shown that the miner was not partially or totally disabled by Black Lung disease. 30 U.S.C. §921.

Once disability or death after disability is shown, and the presumptions outlined above are used to show causation, a claimant is entitled to 50 percent of the minimum monthly payment to which a GS-2 federal employee, if totally disabled, is entitled under title V. 30 U.S.C. §922. In considering a claim, the Secretary is instructed to look at all relevant evidence including affidavits submitted by wife and others. If the miner is deceased, and no other medical evidence exists, affidavits are considered sufficient to establish that the miner was totally disabled due to the disease or that death was due to the disease. 30 U.S.C. §923.

After December 31, 1973, the focus under the Act shifts from federal payments through the Department of Health and Human Services and to payment by mine operators or through state workmen's compensation laws, with regulatory power vested in the Department of Labor. In states where the Secretary of Labor determines that the workmen's compensation law is adequate, (essentially, if the state law provides the same benefits as the federal law with the same standards for determining disability, and causation and the same limitations) the miner is directed to file under that law. 30 U.S.C. §931. In states where the workmen's compensation law is inadequate, mine operators are liable for compensation through the application to miners of provisions of the Longshoremen's and Harbor Worker's Compensation Act (see pp. 7-8 _infra_). These provisions require payment of compensation for disability and medical services, and provide an exclusive remedy. 33 U.S.C. §§905, 906 and 907. If the disease arose out of employment in more than one mine, regulations promulgated by the Secretary are used to apportion the required payment. 30 U.S.C. §932.

Payment to claimants is assured by requiring that mine operators maintain insurance for payment of benefits or qualify as self-insurers. A civil penalty of $1,000 per day is imposed on miners who fail to secure the required benefits, with corporate officers severally liable. 30 U.S.C. §933.

When a mine operator fails to make the required payments, or if no operator is liable, payment is made from a trust fund. Payments from the trust fund are also made to miners whose last employment was before January 1, 1970. The trust fund is also used to repay the treasury for claims made prior to April 1, 1978. Operators are liable for repayment to the fund, and a lien is created on property of operators who refuse to pay. 30 U.S.C. §934. The fund is financed through a tax on coal removed from the ground. 30 U.S.C. §934a, I.R.C. §§4121, 4951-52.

If the Secretary of Labor determines that private insurance is not available to operators, he is authorized to establish and implement an insurance program to enable operators to purchase the insurance required under §932, 30 U.S.C. §934.

2. Federal Employers Liability Act, 45 U.S.C. §§51-60; The Jones Act and Merchant Marine Acts, 46 U.S.C. §§688-692.

The Federal Employers Liability Act operates to eliminate certain common law barriers to recovery by employees for injuries caused by the employer's negligence. The Act grants railroad employees a cause of action which denies the defendant the defenses of assumption of risk or the fellow servant rule. Contributory negligence is replaced by a principle of comparative negligence, and a showing that the employer violated federal safety rule or statute negates any claim of contribution. This protection was extended to merchant seamen by the Jones Act and the Merchant Marine Act.

3. Longshoremen's and Harbor Workers' Compensation Act, 33 U.S.C. §§901-950.

This Act provides compensation for disability or death of individuals engaged in maritime employment (not including masters or crewmen) if the disability or death arises out of injury (defined to include occupational disease) that occurs on the navigable waters of the United States (including docks, piers, etc.). 33 U.S.C. §§902, 903. Compensation is paid without regard to fault by the employer. 33 U.S.C. §904. Compensation includes payment for total disability, either permanent or temporary at 66-2/3 percent of average weekly wages and payment for permanent partial disability, set by a schedule linked to the type of disability. 33 U.S.C. §908. Death benefits, including funeral expenses, are paid to widows or other survivors. 33 U.S.C. §909. Employers must also provide medical services and supplies. 33 U.S.C. §907.

If an individual establishes the fact of injury, a presumption is created that all other requirements for compensation are met. 33 U.S.C. §920. This presumption can be rebutted only by substantial evidence to the contrary.

Employers must obtain insurance or serve as self-insurers. Where the employer defaults, payments are made from a special fund, created through (1) a pro-rated assessment on each carrier or self-insurer (considering the probable expenses of the fund and the percentage of that carrier's payments), (2) payments into the fund from the death of an employee when no person is entitled to recover and collection of fines and penalties. 33 U.S.C. §944. Alternatively, the employee can maintain an action at law or in admiralty in which the employer cannot plead contributory negligence, assumption of risk or the fellow servant rule. 33 U.S.C. §905. Liability under the act bars recovery in other kinds of actions.

Essentially, then, the act operates like a state workers' compensation law for a particular class of employees. The Secretary of Labor appoints deputy commissioners to handle claims in a given "compensation district." The Secretary may appoint deputy commissioners from state boards or commissions, and may use the state workers' compensation system for administration. 33 U.S.C. §940.

4. Compensation for Work Injuries -- Government Employees, 5 U.S.C. §§8101-8193.

The federal government also provides compensation for the disability or death of a government employee resulting from personal injury (or occupational disease) sustained while in the performance of a duty related to government employment. The only exceptions to this rule arise when the injury is caused by the willful misconduct of the employee, when the injury is caused by the employee's intention to injure himself or another, or when the injury is proximately caused by the employee's intoxication. 5 U.S.C. §8102. Medical services are provided even if no disability arises. 5 U.S.C. §8103.

5. Veteran's Benefits, 38 U.S.C. §§101-333.

Federal veteran's benefits include compensation for death and disability and for injury or disease suffered in the line of military duty unless caused by the injured party's own misconduct. Injuries or diseases must be service-related and must be manifest within one year of leaving the service, 38 U.S.C. 101-310, 331, requirements that are often difficult to establish. Trauberman _supra_ at 23. No benefits are given to those who have been dishonorably discharged.

6. War Risk Hazard Compensation, 42 U.S.C. §§1701-1717.

These sections of the code provide for the compensation of employees of government contractors or "non-appropriated fund instrumentalities", such as Army post exchanges, officer's clubs, and other facilities which are not funded by yearly appropriations, for injuries resulting from war risk hazard. 42 U.S.C. §1701. A war risk is defined as any hazard arising during a war in which the United States is engaged (or during an armed conflict) caused by the discharge of any missile including a liquid, gas or other noxious substance, either by a hostile force or in combating an actual or imagined attack by a hostile force. 42 U.S.C. §1711. Payments are made to those who do not get worker's compensation. 42 U.S.C. §1705.

C. Statutes Providing Compensation to Anyone Injured by a Particular Type of Occurrence

1. Federal Tort Claims Act, 28 U.S.C. §§1346(b), 1402, 2401, 2671-2680.

The Federal Tort Claims Act (FTCA) is a waiver of sovereign immunity and grants United States District Courts exclusive jurisdiction to hear claims against the United States for money damages arising from the tortious acts of government employees while acting within the scope of their employment. Liability is determined by applying the law of the place where the allegedly tortious act or omission occurred. 28 U.S.C. §1346(b).

The United States is liable "in the same manner and to the same extent as a private individual under like circumstances..." except that no liability exists for prejudgment interest or punitive damages. 28 U.S.C. §2674. Claimants must first present their claims to the federal agency involved. 28 U.S.C. §§2676, 2679.

The act does not waive sovereign immunity for claims arising out of particular types of governmental activities and particular types of intentional torts. Most notable among the exceptions are those for claims arising from the act or omission of an employee "exercising due care in the execution of a statute or a regulation," or for claims based upon "exercise or performance or the failure to exercise or perform a discretionary function or duty." 28 U.S.C. §2680.

Because FTCA contemplates liability only for the negligence of government employees or agents, government ownership of property[1] is not a basis for liability under FTCA. If the federal government owns a hazardous waste disposal site, the plaintiff would not be able to recover under FTCA unless his injury was caused by the failure of a government employee to exercise due care.

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[1] Kropp v. Douglas Aircraft Co., 329 F. Supp. 447, 470 (E.D. N.Y. 1971) (no liability under FTCA because of mere fact that the government owned the plane in which plaintiff was injured.)

The question could arise whether an independent contractor is an employee under the FTCA. It has been held that the status of a contractor will be determined under the law of the state where the tort occurs.[2] To determine if a contractor is an employee, several factors are considered. Primary among these is the degree of control exercised by the government over the contractor's performance. Retention of general supervisory power by the government is not enough to find that the contractor is an employee. However, where the government takes over actual direction of performance, liability may attach. Thus, if the government is concerned with the methods and means by which an end result is reached, liability can be found.[3]

In any case where a plaintiff seeks to hold the government liable for the acts of a contractor, a factual analysis must be done to determine if the contractor is an employee. Initially, the courts will look to the contract itself as the starting point. Unless fairly direct government control is found over day-to-day operation under the contract, no liability will be found despite: (1) the obligation of the contractor to comply with federally established safety standards; (2) material and workmanship subject to government approval, (3) periodic government inspections; (4) periodic safety reports; (5) the right of the government to stop work when safety measures are not observed or (6) massive government safety programs.

If Congress were to provide a private statutory remedy for injury due to hazardous waste, relief under FTCA would not be precluded unless the statutory compensation scheme is comprehensive and intended to be exclusive.[4]

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[2] Id.

[3] Id.

[4] See United States v. Muniz, 374 U.S. 150, 160 (1962); Feres v. United States, 340 U.S. 135 (1950).

2. Price Anderson Act, 42 U.S.C. §§2210-2222.

The Price Anderson Act is designed to insure that funds are available to pay claims in the event of a nuclear accident, and to promote nuclear power by limiting the possible liability of the nuclear industry for such claims. The act requires a licensee of a nuclear plant to maintain "financial protection" to cover claims. Potential liability is limited to 560 million dollars for claims arising from a single "extraordinary nuclear occurrence." If such an occurrence does take place, plaintiffs can recover on a strict liability basis and the defenses of contributory negligence, government immunity and the tolling of the statute of limitations are waived. 42 U.S.C. §2210. The Act also provides for insurance and has provisions that spread costs throughout the nuclear industry. For more detailed discussion, see Grad, Treatise on Environmental Law §6.04[2].

3. Death on the High Seas Act, 46 U.S.C. §§761, 768.

This act simply creates a cause of action, in admiralty, for wrongful death occurring on the high seas, beyond a "marine league from the shore of any state." 46 U.S.C. §761.

4. Strict Liability for Damages -- Oil and Hazardous Substances -- Trans Alaska Pipeline Authorization Act, 43 U.S.C. §§1651-55; Deepwater P rt Act, 33 U.S.C. §§1501-1524; Outer Continental Shelf Lands Act, 43 U.S.C. §§1331-1343, 1801-1866; Federal Water Pollution Control Act, 33 U.S.C. §251-1376.

These statutes contain provisions for strict liability for damage to public and private property and natural resources. The Trans Alaska Pipeline Act also provides that the holder of a pipeline right of way is liable for damages to all damaged parties without regard to fault. 43 U.S.C. §1653. Except in cases involving discharges of oil from vessels at pipeline terminal facilities, liability is limited to $100,000,000 for any one incident. 43 U.S.C. §1653(c)(3). Recovery under the Act in such cases does not "preempt the field of strict liability" or "preclude any State from imposing additional requirements." 43 U.S.C. §1653(c)(9). Apparently, contributory negligence of the damaged party is not a defense in such cases, but is a defense to other claims under the Act. Compare 43 U.S.C. §1653(c)(2) to 43 U.S.C. §1653(a)(1).

To cover unpaid claims for damages from oil discharges from vessels, the Act established a trust fund financed by collections by the pipeline operator from the owners of the oil.

Provisions in the Deep Water Port Act and the Outer Continental Shelf Lands Act are essentially the same as those in the Trans Alaska Pipeline Act -- except that under Outer Continental Shelf Lands Act, permissible claims are limited to damage to property and natural resources. 43 U.S.C. §1813.

The Federal Water Pollution Control Act imposes strict liability for the cost of clean-up, removal and mitigation on discharges of oil and hazardous substances on to navigable waters. 33 U.S.C. §1321.

D. Conclusion

Several federal laws do provide compensation to those who suffer a particular type of injury, to those who are injured from exposure to a particular type of risk, or to beneficiaries of particular insurance programs. While generally aimed at narrow problems, several of these statutes employ compensation mechanisms using notions of strict liability, presumptions of causation or contingency fund arrangements that may be useful as models for a compensation scheme to aid those injured by exposure to hazardous waste.

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*This memorandum is based on research by Dennis Toft, Columbia '82, research assistant, L.D.R.F.

E.

STATE STATUTORY REMEDIES FOR INJURIES FROM HAZARDOUS WASTES

TO: Superfund §301(e) Study Group

FROM: Frank P. Grad, Reporter

RE: State Statutory Remedies for Injuries from Hazardous Wastes

DATE: December 1, 1981.*

I. Introduction

Most states have recognized the problem of hazardous wastes and their potential damage to the public's safety and the environment, and most states have statutes that in some way attempt to prevent the discharge of toxic chemicals or provide for a quick clean-up of a toxic spill. Through Solid Waste Management Acts, Environmental Quality Laws or Hazardous Substances Control Acts, state legislatures have tried to regulate hazardous waste facilities, and have decided who is responsible for some of the costs of a hazardous substance spill, and how and when the state can collect damages.

Fewer state legislatures have addressed the problems of how a private plaintiff can recover damages for personal injuries, including damages caused by disease resulting from the discharge of hazardous wastes. Some states have considered the issue and have enacted statutes. Three different approaches appear. The first type of statute grants power to the state to collect damages for a hazardous substance discharge, but leaves a private plaintiff with only existing statutory and common law remedies. The second type of statute aids the private plaintiff's recovery of compensation by allowing the plaintiff to claim against existing funds or to insure the operator is not judgement proof. Lastly, some states have attempted to ease a plaintiff's case by allowing for strict liability or joint and several liability or a presumption of causation.

For the most part, these statutory remedies have limitations that severely reduce their usefulness to a plaintiff. Traditional common law remedies present problems of proof as to causation and negligence and statute of limitations in a highly technical toxic tort case. Speeding up remedies will serve no purpose if the remedy itself is inadequate. Even statutes that aid a plaintiff on some issues fail to do so on other issues, and thus may be considered inadequate.

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*revised February, 1982.

II. Statutes Reiterating Common Law Remedies

One of the more common provisions that occur in states' environmental statutes is one stating that the legislature is not denying private plaintiffs the right to sue polluters using common law or other statutory remedies, when the legislature has granted the attorney general or other state official the right to sue for damages incurred by the state. The states that have such statutes are Hawaii,[1] Idaho,[2] Illinois,[3] Kentucky,[4] Louisiana,[5] Maine,[6] Maryland,[7] Missouri,[8] Nevada,[9] New Mexico,[10] North Dakota,[11] Pennsylvania,[12] and Texas.[13]

For example, the Pennsylvania statute states: "... It is hereby declared to be the purpose of this act to provide additional and cumulative remedies... and nothing contained in this act shall in any way abridge or alter rights of action or remedies now or hereafter existing in equity, or under common law or statutory law...."[14]

Wyoming, in its Environmental Quality Act, expressly abstains from either limiting existing rights or creating new rights or new causes of action for plaintiffs in hazardous waste cases. The Wyoming statute reads: "Nothing in this act shall be construed to abridge, limit, impair, create, enlarge or otherwise affect substantively or procedurally the right of any person to damages or other relief on account of injury to persons or property and to maintain any action or other appropriate proceeding therefore."[15]

III. Statutes Intended to Establish More Effective Remedies

A. State Funds that a Plaintiff May Claim Against

Alabama,[16] Arizona,[17] Colorado,[18] Connecticut,[19] Georgia,[20] Illinois,[21] Louisiana,[22] Maryland,[23] Michigan,[24] New Hampshire,[25] New Mexico,[26] North Carolina,[27] Pennsylvania,[28] Tennessee,[29] and Wisconsin[30] have set up funds for emergency clean-up of a hazardous waste spill or leakage, but these funds may only be used for containing, removing or mitigating the effects of a hazardous chemical leakage. Private claims for damage or injury are not expressly allowed to be made upon the emergency spill response funds.

New Jersey created a fund to pay for the clean-up of hazardous substance discharges, but the New Jersey law provides that "the fund shall be strictly liable, without regard to fault ... for all direct and indirect damages no matter by whom sustained..."[31] In listing non-exclusive examples of damages, the statute does not mention damages for personal injuries, but does refer to real and personal property damage. After paying out damages to the claimant, the fund may recover payment from the strictly liable discharger by subrogation of the claim.[32]

The New Jersey statute states the fund is "strictly liable ... for all direct and indirect damages no matter by whom sustained..."; however, the examples of damages do not specifically include bodily injury, but neither does the statute specifically exclude bodily injury as a measure of damage.[33]

New Jersey statutory law also makes the chief executive of the New Jersey Spill Compensation Fund responsible for promoting settlements between the claimant and the person responsible for the discharge.[34] If the discharger is unknown, the claimant can arrange a settlement with the fund.[35] When agreement cannot be reached, the issue is resolved by arbitration.

The Florida Hazardous Waste Management Trust Fund allows individual plaintiffs to make claims upon it by documentation of damages and proof that the damages were the direct result of the release of hazardous waste into the environment.[36] However, only claims for real or personal property damages can be made; personal injury claims will not be allowed.

B. Financial Responsibility of the Owner or Operator of a Hazardous Waste Disposal Site

A total of thirteen states have provisions in statutes which are concerned with the financial responsibility of the operator of a toxic chemical dump site. However, six of these statutes requiring "financial responsibility"[37] or the bonding[38] of a hazardous waste facility are only concerned with the operator's funds regarding maintenance, operation, closure, or perpetual care, and they make no mention of funds to cover liability due to property damage or injury.

Five states statutorily require the appropriate agency to issue rules and regulations regarding the financial responsibility of the operator of a facility. Though financial responsibility is to be a function of potential liability, in no case is the extent of liability expressed. Mississippi requires an operator of facilities to meet minimum "standards for financial responsibility to cover liability",[39] but liability is left undefined. Similarly, Nebraska law, without defining liability, requires a hazardous waste disposal facility to acquire bonding or insurance "to insure...financial responsibility for any liability."[40] New Hampshire requires financial responsibility to insure the protection of the public health.[41] Pennsylvania requires financial responsibility for sudden and accidental occurrences.[42] Tennessee requires bonds to be posted to cover liability, and a factor in determining the amount of the required bond is potential property damage.[43]

Only two states, Florida and Oklahoma, have legislation specifically aimed at insuring an operator's financial ability to pay for damages to private plaintiffs. Florida not only requires an owner or operator to be bonded or insured for any liability that may be incurred in the operation of the facility,[44] but the amount of financial responsibility required depends on the probable damage to human health, the danger and probable damage to private and public property near the facility, and the probable time that the hazardous waste and facility involved will endanger the public health, safety and welfare.[45] It should be noted that the amount of coverage which is determined to insure financial responsibility "represents the maximum financial responsibility of the owner or operators of such ... facility."[46] The financial responsibility requirement of an owner or operator holding cash, surety bonds or casualty insurance, may be waived when "due to the size or magnitude of the operation, waiving the requirement will not conflict with the purposes of the requirement."[47]

An Oklahoma statute not only requires insurance, but also states what the insurance must cover. "Liability insurance shall be provided by the applicant and shall apply to sudden and non-sudden bodily injury or property damage .... Such insurance shall be maintained for the period of the operation of the facility and shall provide coverage for damages resulting from [the] operation of the facility during operation and after closing ..."[48] There are also provisions for the owner of the dump site to post a bond rather than maintain insurance.[49]

The required insurance coverage during the operation and after the closing of the hazardous waste disposal plant parallels the requirements of the RCRA hazardous waste regulations and of CERCLA. It attempts to assure the plaintiff that a solvent defendant exists. But, due to the extraordinary amount of potential damage that could be caused by escaping hazardous chemicals,[50] it is unlikely that insurance or bonding will cover all potential liability.

Also, even if the defendant were fully solvent, in personal injury actions based on the occurrence of a disease, problems of proof of causation remain.

IV. Statutes Intended to Strengthen Plaintiff's Cause of Action

The North Dakota Environmental Law Enforcement Act of 1975 provides that "... any person aggrieved by the violation of any environmental statute, rule, or regulation ... may bring an action ... to recover any damages that have occurred as a result of the violation ..."[51] The legislature intended to create an additional remedy, and not to displace other statutory or common law remedies.[52] The compensation for personal injury would probably be included under "damages," and violations of the North Dakota Solid Waste Management and Land Protection Act[53] would therefore provide the basis for the private remedies under the Environmental Law Enforcement Act of 1975. The statute reflects a negligence *per se* approach to show when a duty has been violated. However, the statute does not eliminate the problem of proving that the discharge was the proximate cause of the injury or illness.

Four states have passed statutes providing for strict liability in private toxic tort cases if hazardous chemicals have escaped from a disposal site, or have been spilled into the waters of the state.

Alaska has the most broadly applicable strict liability provisions. Under Alaska law, the person in control of hazardous substances is strictly liable for damages to persons or property, without regard to fault, whenever the hazardous substances enter water or lands of another. The only defenses available to the defendant are that the spill was due to an act of war, or third party intervention, or due to an act of God or the negligence of the United States or Alaska.[54] "Damages include, but are not limited to, injury to or loss of persons or property, real or personal, loss of income, loss of means of producing income, or the loss of an economic benefit."[55]

North Carolina also has a strict liability statute for damages and injuries caused by hazardous substances. However, the hazardous substance must enter the waters of the state before strict liability can be applied.[56] "Waters" include surface and ground-waters, public or private, natural or artificial.[57] It is a defense that the discharge was authorized by the North Carolina Environmental Management Commission. Other defenses include act of God, act of war or sabotage, act by a third party, negligence by the United States, North Carolina or a political subdivision of North Carolina or direction by a law enforcement officer.[58]

Maine imposes strict liability for improper disposal of hazardous waste if such disposal endangers health, safety or welfare. "A person who disposes of hazardous waste when that disposal, in fact, endangers the health, safety or welfare of another, is liable in a civil suit for all resulting damages. It is not necessary to prove negligence..."[59] The statute does not make clear whether endangerment must be proven separately from the specific injuries for which the action is brought. No reported cases [as of 5/81] have resolved this issue. "For the purposes of this action, damages shall be limited to damages to real estate or personal property or loss of income directly or indirectly as a result of a disposal of hazardous wastes."[60] The defendant has a partial defense if the discharge was the result of an act of war or an act of God; damages may be mitigated if either event occurs.[61] The strict liability statute does not provide for damages for pain and suffering or mental distress, but the statute does not prevent these damages from being collected under the common law.[62]

The Rhode Island Hazardous Waste Management Act provides for "absolute liability." "Any person who shall violate the provisions of this chapter through the disposal of hazardous waste in a manner or location not authorized by this chapter or the rules and regulations promulgated pursuant hereto, or who shall have caused such unauthorized disposal of hazardous wastes shall be absolutely liable ... for all damages, losses or injuries ... which result directly or indirectly from such discharge."[63]

The Rhode Island regulations prohibit disposal of extremely hazardous waste in a manner that would create a danger to the environment or public health or safety.[64] Disposal facility operations may not engage in activities that cause air or water pollution.[65] Under the Rhode Island law and regulations, any unauthorized discharge of such hazardous waste triggers absolute liability.[66]

Massachusetts and North Carolina have settled problems of apportionment when two or more parties play some role in the discharge of toxic chemicals. Both states have enacted statutes placing joint and several liability upon all persons having control over or causing or contributing to the discharge of hazardous substances.[67] The North Carolina law, as previously noted, is limited to hazardous substances that enter the waters of the state.[68]

The Massachusetts statute is more farreaching in that joint and several liability attaches when the discharge of hazardous substances is "into or proximate to any of the waters of the commonwealth."[69] Also, the Massachusetts law makes the Division of Water Pollution Control responsible for determining the "names of all persons who owned or controlled the oil or hazardous material or who owned or controlled or leased the vessel, tank, pipe, hose or other container in which the oil or hazardous material was located when the spillage, seepage or discharge occurred. Said persons will be jointly and severally liable to the commonwealth ... and to any other person for any damages to his real and personal property."[70] The

Massachusetts statute, however, unlike the North Carolina statute, is limited to property damage and does not cover compensation for personal injury.

Two states, Massachusetts and Pennsylvania, have statutorily eased plaintiff's burden of proof by establishing the presumption of causation for damages and injuries that occur either near a toxic dump site or after a spill of hazardous substances.

The Pennsylvania Solid Waste Management statute provides that a person who "stores, treats or disposes of hazardous waste shall be liable, without proof of fault, negligence, or causation for all damages, contamination or pollution within 2,500 feet of the perimeter of the area where [the] hazardous waste activities have been carried out."[71] This is a rebuttable presumption and the defendant may seek to overcome it by appropriate evidence to the contrary. This statute does not specifically mention personal injury, but it does provide for liability for "all damages," so personal injuries appear to be included in the statute's coverage. Also note that under the Pennsylvania statute the scope of strict liability is limited to approximately one half mile from the toxic dump site.

The Massachusetts Hazardous Waste Management Act states that any violations of the Act or regulations promulgated under the Act "shall be presumed to constitute irreparable harm to the public health, welfare, safety and the environment."[72] Similar to the Pennsylvania statute, the presumption may be rebutted by competent evidence. Nonetheless, in a personal injury case, this statute would impose a burden of disproof on the defendant(s). The plaintiff starts with the presumption that the leakage of toxic chemicals created irreparable harm, and the defendants must then prove that the leakage did not cause plaintiff's injury or disease. This relieves the plaintiff from proving the most difficult element of causation.[73]

New Hampshire law provides a unique measure of compensation to a successful plaintiff. A defendant is liable to a successful plaintiff in an amount equal to three times any actual damages sustained by such plaintiff, if the defendant has been convicted of a violation of the Hazardous Waste Management Act and that violation has led to injury to the private plaintiff.[74] However, the plaintiff's burden of proving the defendant's liability is not in any way lessened.[75]

V. Conclusion

The statutory remedies and aids which state legislatures have passed will in some ways help some plaintiffs in personal injury suits against the discharger of hazardous substances, but, on the whole, they appear to be inadequate.

Only two states, Pennsylvania and Massachusetts, have tackled the problem of proof of causation, which is the most difficult burden that a plaintiff carries in a toxic tort case.[76]

Strict liability, as imposed in Alaska, Maine, North Carolina and Rhode Island, relieves the plaintiff of proving negligence, but still the plaintiff must prove causation. These strict liability statutes have limitations. Maine does not allow strict liability for personal injuries. North Carolina only allows strict liability if the hazardous substance entered the waters of the state and then caused the injury.

Massachusetts and North Carolina impose joint and several liability upon all contributors to a hazardous waste discharge. This lessens, but does not eliminate the possibility of a plaintiff not being able to collect a judgement due to the financial condition of the defendant.

New Jersey, Florida and Oklahoma appear to have speeded up the remedies available to an injured party by respectively allowing damage claims upon superfunds, requiring insurance coverage and allowing the victim to go to arbitration. These remedies are not final solutions. The New Jersey legislation failed to mention personal injury claims as valid claims upon the fund; however, it did not eliminate the possibility. The Florida statute will not allow personal injury damages to be compensated by its fund. The Oklahoma insurance concept assures that some funds will be available, but still the plaintiff must prove that the insured toxic dump caused plaintiff's injuries.

Several state legislatures expressly do not restrict common law remedies, but few states expand a defendant's liability.

In sum, the statutory remedies vary greatly from state to state, but none seem fully comprehensive for a personal injury suit involving the discharge of hazardous substances.

FOOTNOTES

*This memorandum is based on research by Stephen M. Kane, Columbia '83, research assistant, L.D.R.F.

1. Hawaii Rev. Stat. §342-16 (1976).
2. Idaho Code §39-108(8) (1977).
3. Ill. Ann. Stat. ch. 111-1/2 §1022.3 (Smith-Hurd) (Supp. 1981-82).
4. Ky. Rev. Stat. §224.995(3) (1977).
5. La. Rev. Stat. Ann. §30:1074(4) (West) (Supp. 1982).
6. Me. Rev. Stat. Ann. tit. 38, §1306-c(5) (Supp. 1981-82).
7. Md. Nat. Res. Code Ann. §8-1403 (1974).
8. Mo. Ann. Stat. §260.425(7) (Supp. 1980).
9. Nev. Rev. Stat. §445.321 (1979).
10. N.M. Stat. Ann. §74-6-13 (1981).
11. N.D. Cent. Code §32-40-04 (1976).
12. Pa. Stat. Ann. tit. 35, §6018.607 (Purdon) (Supp. 1981).
13. Tex. Rev. Civ. Stat. Ann. art. 4477-7 §10 (Vernon) (Supp. 1982).
14. Pa. Stat. Ann. tit. 35, §6018.607 (Purdon) (Supp. 1981-82).
15. Wyo. Stat. §35-11-901(o) (Supp. 1982).
16. Ala. Code §§22-30-23, 23-30-9 (Supp. 1981).
17. Ariz. Rev. Stat. Ann. §36-2805 (Supp. 1981-82).
18. Colo. Rev. Stat. §29-22-105 (Supp. 1981).
19. Conn. Gen. Stat. Ann. §25-54ee(d) (Supp. 1982).
20. Ga. Code §43-2909(4) (Supp. 1981).
21. Ill. Ann. Stat. ch. 111-1/2, §1022.2 (Supp. 1981-82).
22. La. Rev. Stat. Ann. §§30:1143, 30:1149 (Supp. 1982).
23. Md. Nat. Res. Code Ann. §8-1413.2(f) (Supp. 1981).

24. Mich. Comp. Laws Ann. §299.543 (Supp. 1982-83).

25. N.H. Rev. Stat. Ann. §§147-B:3, 147-B:6 (Supp. 1981).

26. N.M. Stat. Ann. §74-4-8 (1981).

27. N.C. Gen. Stat. §143-215.87 (Supp. 1979).

28. Pa. Stat. Ann. tit. 35, §6018.701 (Purdon) (Supp. 1981-82).

29. Tenn. Code Ann. §53-6308(c)(6) (Supp. 1981).

30. Wis. Stat. Ann. §144.76(6) (Supp. 1981).

31. N.J. Rev. Stat. §58:10-23.11g(a) (1982).

32. N.J. Rev. Stat. §58:10-23.11q (1982).

33. N.J. Rev. Stat. §58:10-23.11g(a) (1982).

34. N.J. Rev. Stat. §58:10-23.11l (1982).

35. N.J. Rev. Stat. §58:10-23.11m (1982).

36. Fla. Stat. §403.725(1) (Supp. 1981).

37. Alaska Stat. §46.03.830 (Supp. 1981),
Ga. Code Ann. §43-2909(1) (Supp. 1981),
Utah Code Ann. §26-14-8(4)(c) (Supp. 1981).

38. Ky. Rev. Stat. Ann. §224.884 (Supp. 1980),
Md. Nat. Res. Code Ann. §8-1413.2(k)(vi) (Supp. 1981),
Nev. Rev. Stat. §445.294 (1979).

39. Miss. Code Ann. §17-17-27(1)(h) (Supp. 1981).

40. Neb. Rev. Stat. §81-1521.04 (Supp. 1980).

41. N.H. Rev. Stat. Ann. §147-A:5(I) (Supp. 1981).

42. Pa. Stat. Ann. tit. 35, §6018.506 (Supp. 1981).

43. Tenn. Code Ann. §53-6308(c)(1) (Supp. 1981).

44. Fla. Stat. §403.724(1) (Supp. 1981).

45. Fla. Stat. §403.724(3)(b), (c), (d) (Supp. 1981).

46. Fla. Stat. §403.724(3) (Supp. 1981).

47. Fla. Stat. §403.724(6) (Supp. 1981).

48. Okla. Stat. tit. 63, §1-2008(B) (Supp. 1981-82).

49. Id.

50. For example, the Love Canal litigation has produced claims of over 2.5 billion dollars. Note, "Allocating the Costs of Hazardous Waste Disposal," 94 Harv. L. Rev. 584, 586 (1981).

51. N.D. Cent. Code §32-40-06 (1976).

52. N.D. Cent. Code §32-40-04 (1976).

53. N.D. Cent. Code 32-40-01 et seq. (1976& Supp. 1981).

54. Alaska Stat. §46.03.822 (1977).

55. Alaska Stat. §46.03.824 (1977).

56. N.C. Gen. Stat. §143-215.93 (Supp. 1979).

57. N.C. Gen. Stat. §143-215.77(18) (1978).

58. N.C. Gen. Stat. §143-215.83(b) (Supp. 1979).

59. Me. Rev. Stat. Ann. tit. 38, §1306-C(5) (Supp. 1981).

60. Id.

61. Id.

62. Id.

63. R.I. Gen. Laws §23-19.1-22 (Supp. 1980).

64. 2 State Solid Waste-Land Use, Envir. Rep. (BNA) 1301:0802 (1979).

65. 2 State Solid Waste-Land Use, Envir. Rep. (BNA) 1301:0708 (1980).

66. R.I. Gen. Laws §23-19.1-22 (Supp. 1980).

67. Mass. Ann. Laws ch. 21 §27(14) (Michie/Law Coop.) (1980), N.C. Gen. Stat. §143-215.94 (Supp. 1979).

68. N.C. Gen. Stat. §143-215.94 (1978).

69. Mass. Ann. Laws ch. 21, §27(14) (Michie/Law Coop.) (1980).

70. Mass. Ann. Laws ch. 21, §27(14) (Michie/Law Coop.) (1980).

71. Pa. Stat. Ann. tit. 35, §6018.611 (Supp. 1982).

72. Mass. Ann. Laws ch. 21C, §10 (Michie/Law Coop.) (1980).

73. Senate Comm. on Environment and Public Works, 96th Cong., 2d. Sess., Report on Six Case Studies of Compensation for Toxic Substances Pollution: Alabama, California, Michigan, Missouri, New Jersey and Texas, 487-90 (1980).

74. N.H. Rev. Stat. Ann. §147:58(I) (Supp. 1981).

75. N.H. Rev. Stat. Ann. §147:58(II) (Supp. 1981).

76. Id.

F.

PRIVATE REMEDIES FOR VIOLATIONS OF ANTI-POLLUTION STATUTES: IMPLIED RIGHT OF ACTION AND NEGLIGENCE *PER SE*

Appendix F

Private Remedies for Violations of Anti-Pollution Statutes: Implied Right of Action and Negligence *per se*

I. Introduction

The primary purpose of the recent growth of federal and state environmental pollution laws has been to prevent pollution by public regulation rather than provide damages to persons injured. The compensation of victims of environmental pollution has been incidental to the accomplishment of the primary purpose.

In actions for personal injuries, courts may treat violations of legislative enactments either by implying a private right of action from them, or they may regard the violations as evidence of a breach of a duty of care. The courts, however, have rarely used these doctrines to award compensation to persons injured by environmental pollutants as a result of violations of environmental statutes.

What follows is a discussion of the doctrines of implied rights of action and negligence *per se* as applicable to the violation of anti-pollution statutes.

II. Implying Rights of Action for Statutory Violations: Federal Statutes

An early case in which the right to a private remedy was implied from a federal regulatory statute is *Texas & Pacific Ry. Co. v. Rigsby*.[1] In *Rigsby*, plaintiff switchman sought damages for personal injuries sustained as a result of defendant's failure to equip its cars with secure grab irons as required by the Federal Safety and Appliance Act of 1893.[2] In holding that the statute implied a private remedy, the Supreme Court relied on a doctrine of common law. According to that doctrine 'in every case, where a statute enacts or prohibits a thing for the benefit of a person, he shall have a remedy upon the same statute for the thing enacted for his advantage....'[3]

In the case of Cort v. Ash,[4] the Supreme Court stated specific criteria for implying private causes of action under federal statutes. In Cort plaintiff shareholder sought damages and injunctive relief on behalf of himself and his corporation. He alleged that advertisements connected with the 1972 presidential campaign were authorized by the corporation's directors in violation of 33 U.S.C. §610 (1970).[5] Section 610 proscribed corporate contributions in connection with specified federal elections. However, it expressly provided only criminal penalties for its violation.

The court enumerated four factors relevant to determining whether a private right of action should be implied: whether claimant is a member of the class protected by the statute; whether the Act's legislative history indicates an intention to either create or deny a private remedy; whether implying a private remedy is consistent with the Act's purpose; and whether the cause of action is one relegated to state law.[6] The court found none of these factors satisfied by the facts of the case. As a consequence, it ruled that the plaintiff was not entitled to sue under the statute.

The Cort analysis has been sharply attacked. Chief among the criticisms is that the analysis is at odds with the doctrine of separation of powers. The criticism rests on the notion that, under Article III of the Constitution, only Congress has authority to define the jurisdiction of federal courts. In a strongly worded dissent in Cannon v. University of Chicago,[7] for example, Justice Powell argued that to the extent the Cort analysis permits federal courts to "legislate causes of actions not authorized by Congress", it represents an unconstitutional extension of judicial power.[8]

Subsequent Supreme Court cases have narrowed the application of Cort's four factor test and have declined to give equal weight to each of the four factors.

In California v. Sierra Club[9] an environmental organization and two private citizens sought to enjoin the construction and operation of certain water diversion facilities in California which would would allegedly degrade water quality in the Sacramento-San Joaquin Delta, in violation of §310 of the Rivers and Harbors Appropriations Act of 1899.[10] Section 310 prohibits "[t]he creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States...." No provision is made, however, for private enforcement.

The Court explained that in deciding whether the action should be permitted, "the ultimate issue is whether Congress intended to create a private right of action...."[11] The Court indicated that the four Cort factors remain the criteria although they are not entitled to equal weight. With the Court's focus on congressional intent, the inquiry is no longer "simply who would benefit from the [a]ct but whether Congress intended to confer federal rights upon those beneficiaries."[12] The new approach accords greatest importance to the Court's examination of the legislative history for indications of congressional intent to either create or deny a private remedy. If there is neither evidence that Congress intended to benefit a particular class nor that it intended to create a private remedy, the inquiry is ended. The latter two Cort factors, consistency with the legislative scheme and relegation to state remedies, "are only of relevance if the first two factors give indication of congressional intent to create the remedy."[13]

In Sierra Club, as mentioned previously, the Court held that §310 of the Rivers and Harbors Appropriations Act did not vest in plaintiffs a private remedy for its violation. The Court reasoned that the language of the Act did not "focus on any beneficiaries whose welfare Congress intended to further." According to the Court, "[s]uch language does not indicate an intent to provide for private rights of action." Instead it termed the enactment the "kind of general ban which carries with it no implication of an intent to confer rights upon a particular class of persons."[14]

This rationale, however, is at odds with the principle that interests can be protected even if they are so widely shared that each individual's interest is quite small. Although little case law has developed yet to apply this principle in environmental cases, the United States Supreme Court has recognized already that in determining whether plaintiffs have standing, a widely shared interest is still legally protected.[15]

The notion that no one has an interest if everyone has that interest is no longer tenable under a principle which recognizes "minimal" interests as legally protected.

Nevertheless, private remedies are unlikely to be implied from comprehensive federal environmental statutes. In Middlesex Cty. Sewage Authority v. National Sea Clammers,[16] the Supreme Court held that the plaintiffs were not entitled to a private remedy under the Federal Water Pollution Control Act [hereinafter FWPCA] and the Marine Protection Research and Sanctuaries Act of 1972. [hereinafter MPRSA].

Plaintiffs contended that defendants Environmental Protection Agency and the Army Corps of Engineers permitted other defendants to discharge pollutants in amounts not sanctioned by the Acts. They contended further that certain defendants contravened the terms of their permits.

The Court emphasized the comprehensive enforcement provisions, including citizen suit provisions, contained within each act. For example, FWPCA authorizes the Environmental Protection Agency Administrator to issue compliance orders and bring civil suits in response to violations of the Act.[17] It permits him to seek a civil penalty of up to $10,000 for each day of violation and provides, as well, for criminal penalties.[18] The Act allows states to conduct their own permit programs for discharges into their navigable waters only after they demonstrate authority to abate violations with civil or criminal penalties or by other means.[19] Under the Act, interested persons may seek United States Court of Appeals review of various actions by the Environmental Protection Agency.[20] Finally, the Act contains a citizen suit provision which permits private parties to enjoin any person, including the United States, to enforce the Act's provisions.[21]

In view of the Act's comprehensive enforcement provisions, the court concluded that it could not assume that Congress intended that additional remedies be available to private litigants suing under FWPCA and MPRSA.[22] The Court deemed it an 'elemental cannon of statutory construction that where a statute expressly provides a particular remedy or remedies, a court must be chary of reading others into it'.[23]

Many federal enviornmental statutes contain comprehensive enforcement provisions which are often supplemented by provisions for citizen suits.[24] Under the rationale of the Middlesex Court, plaintiffs seeking private relief for the violation of Federal environmental statutes are not likely to prevail on an implied cause of action theory.

Under Middlesex and Milwaukee v. Illinois and Michigan (Milwaukee II)[25] no federal common law of nuisance action exists when Congress has enacted a comprehensive environmental program. In Illinois v. City of Milwaukee (Milwaukee I)[26] the plaintiff, the state of Illinois, filed a motion for leave to file a bill of complaint against four Wisconsin cities and two sewage commissions. It alleged that defendants polluted Lake Michigan with raw or inadequately treated sewage. Illinois requested the Court to abate the discharges as a public nuisance.

The Court noted that the remedy sought by Illinois had not been made available by any federal legislation. It stated, however, hat statutory remedies are not the only federal remedies available and that it 'is not uncommon for federal courts to fashion federal law where federal rights are concerned.'[27] "When we deal with air and water pollution and their ambient or interstate aspects, there is federal common law...."[28]

Although the Court recognized the existence of the remedy which Illinois sought, it refused to exercise original jurisdiction over the action. Instead, it exercised its discretion to remit the case to an appropriate district court.[29]

In Milwaukee II, the Court greatly circumscribed the reach of federal common law of nuisance. It determined that federal common law of nuisance in the area of water pollution was preempted with respect to Illinois' claims. The preemption resulted from the more comprehensive scope of the Federal Water Pollution Control Act, which was completely revised shortly after the decision in Milwaukee I. According to the Court, "[t]he establishment of such a comprehensive program by Congress...strongly suggests that there is no room for courts to attempt to improve on that program with federal common law."[30]

In Middlesex v. National Sea Clammers, the court went even further. There it held that the 1972 amendments to the Act had in fact totally preempted federal common law of nuisance in the field of water pollution.

III. Implying State Causes of Action

Milwaukee II would not affect state courts' interpretation of whether state common law has been displaced by a state statute. This clearly appears to be a matter of general principles of statutory interpretation. In the first place, state common law is distinguishable from the much narrower federal common law concept. So, absent a preemptive federal statutory provision, a state statute probably would not displace a state common law remedy unless the state statute is intended to repeal or modify the common law.[31]

State courts construing state statutes are not subject to the Article III limitations which restrain federal courts.

However, in deciding whether to imply a private remedy for the violation of legislative enactments, both state and federal courts initially seek to ascertain legislative intent.[32] If a court determines that the legislature intended either to provide or not provide a private remedy, the inquiry is ended. However, a state court generally will take a more liberal approach than the federal courts. If no specific legislative intent is discerned, the court usually examines the policy underlying the statute or the legislature's purpose in enacting it--factors closely related to the legislative intent. The court will permit a private right of action based upon the statute if it determines that doing so best promotes the enactment's purpose or policy.[33]

According to the American Law Institute, in order to prevail in an action based upon a state enactment, the plaintiff must demonstrate that "he [is] within the group of persons for whose benefit the legislation was adopted and, ... that the interests invaded, the harm resulting to that interest and the hazard producing the harm are all within the purview of the legislative provision."[34]

For example, in Sherman v. Field Clinic,[35] plaintiffs' family members sought damages for attempts made by defendant collection agency to collect a debt purportedly owed by a plaintiff. The agency employed harassing techniques in its collection attempts which included: phoning plaintiffs' residence numerous times daily; making threatening phone calls to one of plaintiffs at his work place; and employing abusive language with an infant member of plaintiffs' household. Suit was based upon the state's Collection Agency Act[36] which proscribed certain collection agency practices but did not provide for private remedies.[37]

The Court permitted the action to be maintained. It explained that nothing in the Act suggested a legislative intent to limit the remedies available to those enumerated in the Act itself. The court also found that the activities of the collection agency violated the public policy expressed by the enactment, that plaintiffs were members of the class protected by the statute, and that they suffered the type of injury against which the statute guards. Finally, the court determined that the absence of provisions within the Act itself for compensating debtors made necessary its implication of a civil action for damages.[38]

IV. Statutory Violations and the Negligence Standard

Closely related to implying private remedies from legislative enactments is the long recognized common law practice of utilizing statutory violations in negligence proceedings. The American Law Institute defines negligence as "conduct which falls below the standard established by law for the protection of others against unreasonable risk of harm." [39] When a legislative enactment prescribes or proscribes certain activities, courts may interpret it as establishing a standard of conduct the deviation from which bears upon the issue of negligence.

As with implying civil remedies from legislative enactments, the court principally focuses on legislative intent to determine whether to adopt a statutory standard of conduct in a negligence suit.[40] Thus, where legislative intent to provide or not provide a civil remedy is clear, the inquiry need proceed no further. Where such intent is not apparent, the statutory standard will be adopted when the enactment is construed as intended to protect the particular class of persons to which the plaintiff belongs;[41] the statute's violation causes an invasion of the interest(s) the enactment is intended to protect;[42] and when the harm caused by the violation is the type against which the statute is intended to guard, or results from exposure to the particular hazard that the legislature intended to prevent.[43]

Most courts which utilize the statutory standard in nelgigence suits hold that an unexcused violation of it is dispositive on the issue of negligence -- negligence *per se*. Those courts directly adopt the legislatively established standard of conduct and permit the jury no opportunity to modify it. The only task remaining for the fact finder is to rule on the causal connection between the violation and the plaintiff's injury as well as upon the applicability of the traditional defenses of assumption of risk and contributory negligence.[44]

A significant minority of courts hold that the statutory violation is only some evidence of negligence. Those courts permit the jury to consider the legislative declaration of reasonable behavior together with other relevant factors in deciding for itself what constitutes reasonable behavior under the circumstances.[45]

The opinions on implying a federal cause of action, discussed on pages 1-8, supra, do not foreclose the possibility of also using violation of a federal statutory standard to establish a breach of a duty of care in a state tort action.

Federal statutory standards have been the basis for a negligence *per se* claim. In *Orthopedic Equipment Co. v. Eutsler*,[46] the United States Court of Appeals for the Fourth Circuit held that violation of a duty created by the Federal Food, Drug, and Cosmetic Act, 21 U.S.C.A. §§301-302, would be deemed negligence *per se* under Virginia law. *Orthopedic* was cited and distinguished by the United States District Court in *Powell v. Kull*.[47] Unlike *Orthopedic* where the plaintiffs asserted a cause of action under state tort law, plaintiffs in *Powell* asserted a federal cause of action under the Food, Drug and Cosmetic Act so the court held it did not have jurisdiction. The District court set out the factors on which the court in *Orthopedic* based its decision:

> "First, the court [in Orthopedic] recognized that no cause of action was created by the federal statute. Second, the court ruled that the statute established the standard of care which rests upon manufacturers of drugs. Finally, the court held that the effect of a violation of that standard was to be determined by state law."48

V. Conclusion

If explicit federal statutory provisions for private relief are not enacted, injured persons are likely to continue to find statutory remedies unavailable. Federal citizen suit provisions allow members of the public to assert public rights and to seek injunctions against proscribed polluting activities. However, citizen suit provisions do not provide causes of action for private damages.

Plaintiffs must rely primarily on state common law remedies for private causes of action. State statutes might be used to imply a private cause of action, or statute, state or federal, might also be used as a basis for a negligence per se claim. However, both of these -- implied cause of action and negligence per se -- have not yet been widely adopted in cases involving environmental statutes.

FOOTNOTES

*This memorandum is based on research by Henry Morris, Jr., Columbia '83, research assistant, L.D.R.F.

1. 241 U.S. 33 (1916).

2. 45 U.S.C. §4 (1976).

3. 241 U.S. at 39 (Quoted from Holt, C.J., Anon., 6 Mod. 26, 27 (1774)).

4. 422 U.S. 66 (1975).

5. (Repealed 1976).

6. 422 U.S. at 78.

7. 441 U.S. 677 (1979).

8. Id. at 731 (Powell, J. dissenting).

9. 451 U.S. 287 (1981).

10. 33 U.S.C. §403 (1976).

11. 451 U.S. at 293.

12. Id. at 294.

13. Id. at 298. Much of the foundation for the Court's reasoning was established in prior cases in which it rejected attempts to base private actions on federal statutes regulating the financial community. See, e.g., Transamerica Mortgage Advisors, Inc. v. Lewis, 444 U.S. 11 (1979)(shareholder's derivative action based in part upon alleged violations of §206 of the Investment Advisor's Act of 1940. 15 U.S.C. §806-6 (1976). Section 206 proscribed fraudulent practices by investment advisors but did not expressly authorize private remedies for its violation. The Court rejected plaintiff's contention that a private remedy should be implied from the provision. It deemed the problem "basically a matter of statutory construction....[W]hat must ultimately be determined is whether Congress intended to create the private remedy asserted." 444 U.S. at 15-16 ; Touche Ross & Co. v. Reddington, 442 U.S. 560 (1979)(Addressed the question of whether customers of securities brokerage firms that are required to file certain financial reports with

regulatory authorities by §17(a) of the Securities and Exchange Act of 1934, 15 U.S.C. §78(9)(a)(1976), have an implied cause of action against accountants who audit such reports based on misstatements contained [therein]." 442 U.S. at 562. In finding no private remedy the Court noted the "stricter standard for the application of private causes of action" adhered to since *Cort*. "The ultimate issue is one of Congressional intent...." *Id.* at 578.

14. *Id.* at 294.

15. United States v. Students Challenging Regulatory Agency Procedures ("the fact that all those who use those resources suffered the same harm" did not deprive plaintiffs of standing), 412 U.S. 669 (1973); Sierra Club v. Morton, 405 U.S. 727 (1972).

16. 453 U.S. 1 (1981).

17. 33 U.S.C. 1319(a)(1)(1976).

18. *Id.* §1319(d)[civil penalty], (c)[criminal penalty].

19. *Id.* §1342(b)(7).

20. *Id.* §1369(b).

21. Id. §1365(a)(1). Such citizen suit provisions may not be used, however, to assert private claims for damages; they are limited to vindicating the public interest. GRAD, TREATISE ON ENVIRONMENTAL LAW, §3.03[10][b], text accompanying n. 30.3.

22. 453 U.S. at 13-14. (The Court stated that most of FWPCA's enforcement mechanism have their counterpart under MPRSA).

23. *Id.* at 14, quoting opinion in Transamerica Mortgage Advisors, Inv. v. Lewis, 444 U.S. 11, 19 (1976). Although not suggested by the parties, the Court discussed a possible alternative to express authorization of private suits under congressional enactments, namely §1 of the Civil Rights Act of 1871, 33 U.S.C. §1983 (1976). Section 1 authorizes private suits to redress violations by government officials of rights created by federal statutes. It provides that

> [e]very citizen, who under color of any statute... of any state...causes any citizen of the United States or any person within the jurisdiction thereof the deprivation of any rights...secured by the Constitution and laws, shall be liable to the party injured in an action of law."

The application of §1 to actions for damages for the violation of federal antipollution suits is limited. Only persons harmed by state officials may sue under the provision. In most cases, however, the defendant in an enforcement action is an industrial enterprise and not a proper defendant under §1. See "Environmental Law--Private Remedies for Pollution of Navigable Waters," 50 N.C.L. Rev. 153, 154 (1971). In addition, §1 will not be applied if the Court determines that Congress foreclosed private enforcement of the violated statute within the enactment itself. For example, "[w]hen the remedial devices provided in a particular act are sufficiently comprehensive...they may suffice to demonstrate congressional intent to preclude the remedy of suits under §1983." 453 U.S. at 20. Because of the comprehensive enforcement provisions of FEPCA and MPRSA, the Court refused to grant relief under §1. Given the similarly comprehensive nature of other modern federal anti-pollution statutes, it is also unlikely that §1 will provide relief for their violation.

24. Clean Air Act, §304, 42 U.S.C. §7604 (Supp. 1980), Federal Water Pollution Control Act, §505, 33 U.S.C. §1365 (1978).

25. 451 U.S. 304 (1981).

26. 406 U.S. 91 (1972).

27. Id. at 103. (Quoted from Textile Workers v. Lincoln Mills, 353 U.S. 448, 457 (1957).

28. Id.

29. Id. at 108.

30. 451 U.S. at 22.

31. Under the principles of statutory construction adhered to in virtually all of the states, it is clear that State statutes can and often do preempt previously extant State common law. As a general matter, the common law "prevails throughout the United States except where modified, changed, or repealed by statute or constitutional provision." 15A Am. Jur. 2d Common Law §13 (1976). When a statute and the common law conflict "the common law yields to the statute to the extent of the inconsistency, but where the legislative intent is shown to encompass an entire area, then that statute preempts the common law." Watkins v. State, 42 Md. 349, 400 A.2d 464, 467(1979),

State court inquiry primarily is focused on state legislative intent. In this respect, State courts' reasoning is quite similar to that evident in the Milwaukee and National Sea Clammers cases. State statutes which provide for a specific matter already covered by a common law rule but omit a portion of that rule can be interpreted to indicate a legislative intent to repeal those portions omitted. 73 Am.Jur. 2d Statutes §185 (1974). However, if a statute does not address a common law rule in its entirely and merely touches upon portions of the rule, the remaining portions not considered are not repealed or abrogated. See Fabricius v. Montgomery Elevator Co., 254 Iowa 1319, 121 N.W.2d 361 (1963); Pennsylvania Mutual Life Insurance Co. v. Hunt, 237 Mass. 241, 129 N.E. 391 (1921); Tucson Gas & Electric v. Schantz, 5 Ariz. App. 511, 428 P.2d 686 (1967); State v. Barne 133 Neb. 676, 276 N.W. 676 (1937). A legislature may abrogate or change common law by statute without providing an adequate substitute. Magierowski v. Buckley 39 N.J. Super. 534, 121 A.2d 749 (1956).
Sands has summarized the principles courts use in deciding the common law displacement issue:

> [A statutory interpretation is favored which] preserves the rights or benefits enjoyed under the common law where the result avoids absurdity, retroactivity, unconstitutionality, is in keeping with good policy, is consistent with what is otherwise indicated to be the purpose of the legislation, or is evident from a consideration of the statute read as a whole and in conjunction with other related statutes.

3 SUTHERLAND STATUTORY CONSTRUCTION §61.02 (Sands, 4th ed., (1972).

In recent times, there has been a tendency to construe remedial State statutes less strictly and thus to find that State statutes indicate a change in the policy of the law in derogation of the prior common law. 3 SUTHERLAND STATUTORY CONSTRUCTION §61.03. Many states have adopted laws that seek to change courts' strict interpretations of statutes which displace the common law, but these laws generally are meant simply to eliminate bias toward either a liberal or strict construction. 3 SUTHERLAND STATUTORY CONSTRUCTION §61.05.

32. *But see* PROSSER, HANDBOOK ON THE LAW OF TORTS, 191 (9th ed. 1971) ("Many courts have...purported to 'find' in the statute a supposed 'implied''construction' or 'presumed' intent to provide for tort liability. In the ordinary case, this is pure fiction, concocted for the purpose, The obvious conclusion can only be that when the legislators said nothing about it, they either did not have a civil suit in mind at all, or deliberately omitted to provide for it.")

33. Restatement (Second) of Torts §874A, Comment c, d at 032-3, (1979). *See also id*. Comment f at 304-5 (The private action permitted usually sounds in tort. Typically the action is assimilated to the common law tort which it most resembles. If there is no reasonably analogous tort, however, the court may create a new tort action.)

34. *Id*. Comment i at 310-11.

35. 74 Ill. App. 3d 21, 392 N.E.2d 154 (1979).

36. Ill. Ann. Stat. ch. 111, §§2001-40 (Smith-Hurd 1978)(Amended 1980).

37. 74 Ill. App. 3d at 28-29, 392 N.E.2d at 160. (As summarized by the court, the alleged violations involved §§'9.02 (baseless threat of arrest or criminal prosecution); 9.05 (threat of communication with debtor's employer without written notice), 9.06 (Harassment of debtor or his family), 9.07 (use of profane, obscene, and abusive language). 9.08 (threat of disclosure of the debtor's indebtedness language), 9.08 (threat of disclosure of the debtor's indebtedness to persons without a legitimate business need), and 9.10 (engaging in conduct intending to cause and causing mental or physical illness to the debtor or his family.")

38. *Id*. at 29-30, 392 N.E.2d at 161.

39. *Restatement (Second) of Torts*, §282.

40. *Id*. §286, Comment C at 25.

41. *Id*. §286(a) at 25. *See, e.g.*, Hidalgo v. Cochise Cty., 13 Ariz. App. 27, 474 .2d 34 (1979)(Negligence action for damages due to injuries sustained in two vehicle intersectional collision. Plaintiff contended that the driver's vision was impaired by Johnson grass growth in a ditch adjacent to the intersection. Suit was based upon an alleged violation of Ariz. Rev. Stat. §13-1015 (repealed 1978) which made it unlawful for "[a] person possessing ...controlling or operating irrigation canals, ditches....or any part thereof, to permit [named] weeds...to grow...in or along any such places...." The court affirmed the lower court's dismissal of the suit. It reasoned that the statute was enacted to protect farming and ranching areas from encroachment of noxious weeds, not to protect travelers on roadways.)

42. Restatement (Second) of Torts §286(b). See, e.g., Illustration 9 at 28. ("A Factory Act requires persons operating or leasing buildings for factory purposes to keep the building in safe repair. A leases his factory to B. A fails to repair the roof. In consequence it falls, injuring C, one of B's employees. The fall of the roof causes the factory to close for a month, thus depriving D, another employee of B, of his employment. The statute establishes a standard of conduct as to C's injuries, but not as to D's loss of employment.")

43. Restatement (Second) of Torts §286(c), (d). See, e.g., Memorial Park, Inc. v. Spinelli, 342 So.2d 829 (Fla. 1977)(wrongful death action for the death of a motorcyclist in a collision with an automobile existing defendant's private driveway. Decedent's administratrix alleged that defendant was negligent in erecting a commercial sign which obstructed the line of vision between the two drivers. Suit was based upon Fla. Stat. Ann. §316.135(2) stated tha- "[n]o person shall place or maintain nor shall any public authority permit upon highway any traffic sign or signal having thereon any commercial advertising...." The court did not permit the action to be based upon the statute. It deemed the provision intended to prevent the placing of commercial signs upon official signs and the resulting diverting of attention away from the latter. In Contrast, decedent's death stemmed from visual obstruction; a harm against which the statute was not intended to protect.)

44. PROSSER, supra, note 17 at 201. (Prosser also suggests that there are "statutes, such as child labor laws, so clearly intended to protect a particular class of persons against their own inability to protect themselves, that the policy of the legislature is interpreted to mean that [the defenses of contributory negligence and assumption of risk] are not available.")

45. Id.

46. 276 F.2d 455 (4th Cir. 1960). See also Freeman v. Olin Corp., CV 80-M-5057 (N.D. Ala., Aug. 14, 1981)(Alabama Pesticide Act establishes a standard of conduct on which plaintiffs could base a negligence per se claim); cf. Silkwood v. Kerr-McGee Corp., 485 F. Supp. 566 (W.D. Okla. 1979). The issue was whether compliance with a federal standard precluded an action under state common law strict liability principles. The court, discussing that issue, noted: "the correlative rule is also applied that violation of a safety regulation constitutes conclusive proof of negligence per se." Id. at 579, citing Orthopedic.

47. 329 F. Supp. 193 (M.D. Pa. 1971).

48. Id. at 195.

G.

COMPLIANCE WITH APPLICABLE STATUTORY REQUIREMENTS OR REGULATORY STANDARDS AS A DEFENSE TO ALLEGATIONS OF NEGLIGENCE

TO: Superfund §301(e) Study Group

FROM: Frank P. Grad, Reporter

RE: Compliance with applicable statutory requirements or regulatory standards as a defense to allegations of negligence

DATE: December 1, 1981

While the violation of a legislative requirement may be regarded as negligence per se, in general compliance with the requirements or standards of a statute or regulation does not preclude a finding of negligence where a reasonable person would take additional precautions. Case law on this question is consistent. The courts must determine the circumstances under which a person can be held to a higher degree of care than that required by a statute.

Various guidelines have been suggested. Dean Prosser states:

> Where there is a normal situation, clearly identical with that contemplated by statute or regulation, and no special circumstances or danger are involved, it may be found, and can be ruled as a matter of law, that the actor has done his full duty by complying with the statute, and nothing more is required... But if there are unusual circumstances, or increased danger beyond the minimum which the statute was designed to meet, it may be found that there is negligence in not doing more.[1]

In Hubbard-Hall Chemical Co. v. Silverman,[2] the court found that the pesticide labels employed, although Department of Agriculture approved, failed to adequately warn persons such as plaintiff's intestates. The deceased were migrant farm workers only barely literate in English. The pesticide, parathion, is lethal when administered without protective garments, and the label clearly so indicated. However, no skull and cross-bones or similar symbol was used anywhere on the label.

"We are of the opinion," the Silverman court stated, "that the jury could reasonably have believed that defendant should have foreseen that its admittedly dangerous product would be used by, among others, persons like plaintiff's intestates, who were farm laborers of limited education and reading ability, and that a warning, even if it were in the precise form of the label submitted to the Department of Agriculture would not, because of its lack of a skull and cross-bones or other comparable symbols or hieroglyphics, be adequate instructions or warnings of its [Parathion's] dangerous condition."[3]

In addition to treating statutory requirements as minimal, this holding also implies that statutorily defined standards of care do not preempt any common law duty unless the legislature clearly indicates such an intention. "Neither Congress nor the Department explicitly or implicitly provided that the Department's approval of the label carried with it as a corollary the proposition that defendant had met the possibly higher standard of due care imposed by the common law of torts applied under the local state law of Massachusetts in actions of tort for negligence."[4]

In Burch v. Amsterdam Corp.,[5] a man was seriously injured when vapors from his floor tile adhesive spontaneously ignited. The plaintiff had carefully read the adhesive's label, had provided excellent ventilation in the kitchen while laying the tiles and had extinguished all flames. Unfortunately, he did not think to extinguish the pilot light on his stove.

The court in Burch first agreed that the purpose of the labelling requirements with which defendant had complied was to protect consumers from the dangers of household products.[6] But nothing in the legislation or its history expressly or impliedly limited a seller's common law duty to warn.[7] The label did state prominently in several places that the adhesive was extremely flammable, and required ventilation and extinguished flames during use. The court concluded, however, that "[i]n light of the extreme flammability of vico-10Z, we do not agree that there were no special circumstances here which may have required a higher degree of care."[8]

The court noted that the federal regulations cited by the defendant apply to a wide variety of products with varying degrees of flammability: warnings required by federal regulations may only be minimal in nature and when the manufacturer or supplier knows of, or has reason to know of, greater dangers not included in the warning, its duty to warn may not be fulfilled."[9]

The defendant could not plead compliance with the statute because, in Prosser's words, the situation was not "clearly identical with that contemplated by statute."[10]

The court in Burch also cited the Restatement of Torts §288C[11] which uses a reasonableness test for determining whether circumstances require greater care than the statutory minimum:

> Compliance with a legislative enactment or an administrative regulation does not prevent a finding of negligence where a reasonable man would take additional precautions.[12]

The comment to §288C suggests that any reason for extra caution may constitute a "special circumstance":

> Where there are no such special circumstances, the minimum standard prescribed by the legislation or regulation may be accepted by the triers of fact, or by the court as a matter of law, as sufficient for the occasion; but if for any reason a reasonable man would take additional precautions, the provision does not preclude a finding that the actor should do so.[13]

The Restatement's principles are often cited.[14] Thus, in Berkebile v. Brantly Helicopter Corp.,[15] for example, a helicopter pilot crashed and was killed because he never got his chopper into the "autorotation" mode necessary to make a safe emergency landing. Federal Aviation Agency [FAA] regulations required no less than a one-second allowance for reaction time. Defendant's helicopter allowed between a one and two second reaction time and complied with all other applicable FAA regulations. Plaintiff claimed the defendant manufacturer had designed an unreasonably dangerous helicopter because the reaction time allowance was insufficient. While the defendant asserted that its compliance with FAA regulations precluded a finding of unreasonable danger, the court citing the Restatement (Second) disagreed:

> The [trial] court en banc concluded that the regulation should be the standard in judging whether the helicopter was defective and unreasonably dangerous. The court further concluded that the manufacturer should be able to rely on the federal regulatory standard and that if the jury could fix other standards the regulation would become meaningless. The [FAA'S] standards are far from meaningless... [F]ailure of the manufacturer to comply with the regulations would be negligence per se... Compliance with a law or administrative regulation relieves the actor of negligence per se, but it does not establish as a matter of law that due care was exercised.[16]

In sum, government regulations are merely minimal, unless otherwise intended by the legislature. Their effectiveness is not decreased thereby because their violation is often negligence per se. It is fair to hold the defendant to a common law standard of care as well as a statutory one; in the absence of regulation, the defendant would have to meet that common law standard anyway. Regulation helps him meet that standard because it at least identifies a level of minimum care which can function as a starting point for determining the standard of care a reasonable person would use in the circumstances.

After a court has determined that compliance with pertinent regulations does not preclude a finding of negligence, it must decide what weight to give to evidence of compliance. Generally, although evidence of compliance precludes a finding of negligence per se,[17] it has no more than the usual evidentiary value for ordinary determinations of negligence.[18] In addition, courts are not particularly impressed by compliance with regulations which are not specifically intended to prevent an injury such as the one sustained by the plaintiff, even if that regulation is somewhat related to prevention of those injuries.[19] While a few courts will insist that unusual circumstances exist before the standard of care exceeds the statutory directive, most will consider the common law duty of care controlling whenever a reasonable man would take precautions beyond those required by statute.

FOOTNOTES

*This memorandum is based on research by R. Alta Charo, Columbia '82, research assistant, L.D.R.F.

1. PROSSER, LAW OF TORTS § 36 , at 203-04 (4th ed. 1971). *See*, *e.g.*, Hetherton v. Sears, Roebuck & Co., 593 F.2d 526, 531-32 (3d Cir. 1979); Burch v. Amsterdam Corp., 366 A.2d 1079, 1085 (D.C. Ct. of App. 1976); McVicker v. Chesapeake & Ohio Ry. Co., 307 F.2d 501 (6th Cir. 1962).

2. 340 F.2d 4[illegible] (1st Cir. 1965).

3. *Id.* at 405.

4. This line of analysis has also been employed by courts in nuisance cases. Despite compliance with a pollution regulation (*see* Borland v. Sanders Lead Co., 369 So.2d 523, 525 (Ala. 1979) and Venuto v. Owens-Corning Fiberglass Corp., 22 Cal. App. 3d 116, 128-29, 99 Cal. Rptr. 350, 358 (1st Dist. 1971)) or possession of a valid permit (*see* People v. City of Reedley, 66 Cal. App. 409, 226 P. 408 (3d Dist. 1924) and Commonwealth v. Barnes & Tucker Co., 455 Pa. 392, 319 A.2d 871 (1974)), courts have held that "regulatory law sets minimum standards that may be below (common law) nuisance standards," Note, Hazardous Wastes: Preserving the Nuisance Remedy, 33 STANFORD L. REV. 675, 679 (1981), and have refused to allow defendants to use compliance or possession of a permit as an absolute defense in nuisance actions. For pollution cases, an exception to this policy is made in those rare cases where there is explicit statutory authorization of the pollution. *See* Note, *Hazardous Wastes*, *id.*, *See also* Varjabedian v. City of Madera, 20 Cal. 3d 285, 291-92, 572 P.2d 43, 47-48, 142 Cal. Rptr. 429, 433-34 (1977).

5. 366 A.2d 1079 (D.C. Ct. of App. 1976).

6. *Id.* at 1085.

7. *Id.*

8. *Id.*

9. *Id.* at 1086 (internal quotations omitted).

10. *Id.* at 1085, citing PROSSER, *supra* note 1, at 203.

11. *Id.* at 1085.

12. Restatement of Torts (Second) (adopted 1976).

13. *Id.* at §288C, comment a.

14. *See, e.g.*, Turner v. American Motors General Corp., 392 A.2d 1005, 1007 (D.C. Ct. of App. 1978); Hunt v. Blasius, 55 Ill. App. 3d 14, 12 Ill. Dec. 813, 370 N.E. 2d 617, 622, *judgment aff'd* 74 Ill. 2d 203, 23 Ill. Dec. 574, 384 N.E. 2d 368 (1978); Burch v. Amsterdam Corp., 366 A.2d 1079, 1084, 1085 (D.C. Ct. of App. 1976); Pickerling v. State, 557 P.2d 125, 127 (Hawaii 1976); Jones v. Hittle Service, Inc., 219 Kan. 627, 549 P.2d 1383, 1389 (1976); Koch v. Southern Pacific Transportation Co., 274 Or. 499, 547 P.2d 589, 593 (1976); Billingsley v. Zickert, 72 Wis. 2d 156, 240 N.W. 2d 375, 379 (1976).

15. 219 Pa. Super. 479, 281 A.2d 707 (1971).

16. 281 A.2d at 710.

17. *See, e.g.*, *id.* at 710; Wolford v. General Cable Co., 58 F.R.D. 583, 586. (D.C. Pa. 1973) ("Moreover, although compliance with an administrative regulation relieves the actor of negligence *per se*, it does not establish as a matter of law that he exercised due care."); Blanchard v. Terpstra, 37 Wis. 2d 292, 155 N.W. 2d 156 (1967).

18. *See, e.g.*, Turner v. American Motors General Corp., 392 A.2d 1005, 1007 (D.C. Ct. of App. 1978)("Moreover, it is settled that compliance...neither establishes due care, nor precludes a finding of negligence."). *In accord*, Burch v. Amsterdam Corp., 366 A.2d 1079 (D.C. Ct. of App. 1976); Pickering v. State, 557 P.2d 125 (Hawaii 1976); Hageman v. Signal L.P. Gas, Inc., 486 F.2d 479 (6th Cir. 1973).

19. *See, e.g.*, Hubbard-Hall Chemical Co. v. Silverman, 340 F.2d 402, 405 (1st Cir. 1965)("The approval of the label given by the Department of Agriculture merely satisfied the conditions laid down by Congress for the shipment of the product in interstate commerce."); Turner v. American Motors General Corp., 392 A.2d 1005, 1007 (D.C. Ct. of App. 1978) (compliance with safety regulations concerning visibility and access to emergency exits not dispositive of duty to provide secure footing for passengers ringing bell cord, even though compliance with regulations affected design of window, bell cord and support bars.)

H.

SURVEY OF STATE PUBLIC NUISANCE STATUTES APPLICABLE TO TOXIC WASTE PROBLEMS

TO: Superfund §301(e) Study Group

FROM: Frank P. Grad, Reporter

SUBJECT: Survey of State Public Nuisance Statutes Applicable to Toxic Waste Problems

DATE: October 9, 1981

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I. Introduction

This memorandum surveys the statutory law in the fifty states on the subject of public nuisances. The disposal of hazardous wastes, and the maintenance of hazardous waste disposal sites which may endanger public health and safety fall squarely within the definition of public nuisance. A survey of the public nuisance statutes serves at least two purposes--it may provide a basis for private remedies for hazardous waste injuries, and it may also provide support for the assertion of rights of action for the past maintenance of hazardous waste dumps, countering the assertion that the dumping of hazardous wastes did not violate any legal requirements before the adoption of the hazardous waste provisions (and regulations) under the Resource Conservation and Recovery Act in 1976.

The Survey covers both civil and criminal State nuisance legislation, and examines what kind of sanctions are available and who may apply them. The survey also reviews what private rights of action have been provided in the statutes for the abatement of public nuisances, or for the recovery of damages resulting from such nuisances.

II. Public Nuisance Statutes, Civil and Criminal

Every state has laws that prohibit nuisances and provide the means by which nuisances must be abated. However, the treatment of the field varies widely among the states, with some states having broad and extensive legislation and others only providing briefly for particular types of nuisance, such as health or moral nuisance.

Another major difference in the types of statutory treatment of nuisances is their classification as either civil or criminal. In the civil codes, public nuisances give rise to actions for equitable relief in the courts or abatement actions by state or local health boards. Money damages in such actions are limited to the expenses incurred by the town, city or county officials in causing abatement of the public nuisance, in some cases including the costs of bringing suit. Criminal statutes include specification of criminal classifications (usually misdemeanors) and penalties upon conviction.

States with generalized nuisance provisions define "nuisance" and "public nuisance" in the same manner. The following are two typical definitions of "nuisance":

> (1) A nuisance consists in unlawfully doing an act, or omitting to perform a duty, which act or omission either:
>
> 1. annoys, injures or endangers the comfort, repose, health or safety of others; or
> 2. offends decency; or
> 3. unlawfully interferes with, obstructs or tends to obstruct, or renders dangerous for passage, any lake or navigable river, stream, canal or basin, or any public park, square, street or highway; or
> 4. in any way renders other persons insecure in life, or in the use of property.
>
> (2) Whatever is injurious to health, or indecent, or offensive to the senses, or an obstruction to the free use of property, so as essentially to interfere with the comfortable enjoyment of life or property, is a nuisance, and the subject of an action. (Indiana, Iowa, Minnesota, Montana.)

Also typically, a public nuisance is "one which at the same time affects an entire community or neighborhood or any considerable number of persons, although the extent of the annoyance or damage inflicted upon the individuals may be unequal." (California, Nevada, North Dakota, Oklahoma, Washington, Alabama and Georgia have similar provisions.)

Criminal nuisances may either be defined like the non-criminal ones, or may be characterized as the intentional, knowing or reckless causing or maintenance of a condition which endangers the public health or safety. Arizona, Delaware, Kansas, New Jersey, New Mexico and New York have this type of statute. Other states not included in the list below have criminal nuisance statutes which deal only with "moral nuisances" - that is, those associated with houses of prostitution and assignation, obscene materials, alcoholic beverage violations, gambling activities, and the like - all of which are inapplicable to conditions caused by toxic waste disposal. These states generally have health nuisance provisions, however, which are applicable to the problem.

Table I: Nuisance Statutes

(A) The Non-criminal general nuisance statutes:

Ala. Code §6-5-121

Cal. Civ. Code §§3479, 3480 (West)

Ga. Code Ann. §§72-101, 72-102

Ind. Code Ann. §34-1-52-1 (Burns)

Iowa Code Ann. §657.1 (West)

Mont. Rev. Codes Ann. §27-30-101

N.D. Cent. Code Ann. §42-01-01

Ohio Rev. Code Ann. §3767.01 et seq.

Okla. Stat. Ann. tit. 50, §§1, 2 (West)

S.D. Codified Laws Ann. §21-10-1

Wash. Rev. Code Ann. §§748.120, 748.130[1]

(B) Criminal public nuisance statutes[2]

Ariz. Rev. Stat. Ann. §§13-2908, 13-2917

Del. Code Ann. tit. 11, §1322

Kan. Stat. Ann. §21-4106

Nev. Rev. Stat. §202-450 et seq.

N.J. Stat. Ann. §2C: 33-12 (West)

N.M. Stat. Ann. §30-8-1.

N.Y. Penal Law §240.45

Utah Code Ann. §§76-10-801, 76-10-803.

Wash. Rev. Code Ann. §9.66.010[3]

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[1] Note that Washington has both applicable civil and criminal statutes.

[2] The Colo. and Minn. criminal codes to be reviewed.

[3] See note 1.

III. Abatement Sanctions and Rights of Action

This section is divided into three categories, explaining the different ways a public nuisance may be dealt with. Every state code contains some provision authorizing public officials and public bodies- particularly health boards- to abate public nuisances either on their own or by bringing suit. The first subsection summarizes those powers and duties and provides citations to the relevant state codes. The second subsection enumerates the states which provide for private rights of action in public nuisance cases, and the third covers the private right to abate by persons affected by public nuisances.

A. Abatement by Public Bodies or Officers

State statutes generally do not contain exclusive enumeration of actionable nuisances. There are generally additional provisions giving local government offices and state and local health departments the power to investigate, declare, and abate, remove or destroy any nuisances injurious to the public health. Such authorizations may be found scattered throughout the codes, under sections titled "Cities", "Municipal Corporations", "Health Boards", "Sanitary Districts", "Nuisances Affecting Public Health", etc.

Often these units have a duty, under the law, to commence actions to abate or remove the nuisances they have found to exist. Abatement may be carried out in some states by the order of the health boards - state or local, usually the latter - after investigations are made and proper notice and hearings given to the persons maintaining, creating or permitting (on their private property) nuisances injurious and dangerous to the public health or safety. Upon failure or refusal of such persons to comply with these orders, the health board, officer or any authorized public official or body may, in most states, institute proceedings to enforce compliance by an order or warrant issued by judicial order.

Most statutes grant health officials a right to enter private property to investigate suspected public nuisances, in order to determine whether a nuisance is actually being maintained. If the owner or occupant of the premises fails to take required action, the board may act itself to remove or abate the condition; the costs of abatement will then be charged to the owner, usually in the form of either a tax or lien upon the property. Where criminal violations are involved, fines may be imposed in addition to judgment costs.

Municipalities, towns and villages usually have the power to declare and abate public nuisances by passage of ordinances or by-laws. Such local powers do not supersede the authority of state and local health departments to deal with nuisances dangerous to the public health, safety, welfare and comfort. Generally, abatement may also be ordered by a court in an action brought in the name of the state or city by the state's attorney general, or by the district, county or city attorney of the area in which the nuisance exists, or by any citizen of that area, upon his or her relation to the state. It should be noted that some states only provide this remedy to abate "moral nuisances", leaving health or sanitary nuisances entirely to the proceedings of local health boards. Where it is an available option, however, a suit in the name of the state or city may be brought to enjoin the maintenance of a public nuisance, but not to recover damages for the individuals who may have initiated the suit, or those who originally brought the offending condition to the attention of the proper authorities.

Table 2 is an enumeration of the state statutes granting official bodies and officers the powers to define and declare public health nuisances, and to take action to abate, remove or prevent the same. The first list (A) names the 45 state statutes expressly authorizing the states' health boards and departments to deal with public nuisance. The second (B) lists 35 provisions granting municipalities similar powers (concurrent with the health boards); it includes those provisions authorizing the city, district, county and state attorneys to institute actions in the name of the state or city to have public nuisances abated. The third category (C) is that of criminal statutes authorizing courts to order abatement, in their discretion, upon conviction of persons creating, permitting or maintaining nuisances.

Table 2

State Statutes Giving Powers to Declare and Act on Public Nuisances

(A) Powers of Health Boards

1. Ala. Code §22-10-1: enumerates nuisances; §22-10-2: county board; §22-10-3: summary destruction of nuisances without compensation.

2. Alaska Stat. - no applicable provisions (deals only with smoking as a health nuisance, and gambling and liquor offenses as criminal nuisances).

3. Ariz. Rev. Stat. Ann. §36-601: enumerates nuisances: cease and disist order by Director of Board of Health, who may file action in court if necessary; §36-602: abatement by county, city or local board; §36-63: right to enter premises.

4. Ark. Stat. Ann. §82-112: Governor may require examination by Board of Health.

5. Cal. Health and Safety Code §§205, 206.

6. Colo. Rev. Stat. §§25-1-613, -616, -619.

7. Conn. Gen. Stat. Ann. §19-79 town, city and borough directors of health.

8. Del. Code Ann. tit. 16, §§310, 311: local boards of health.

9. Fla. Stat. Ann. §381.031: duties and powers; §§386.01-386.031: definition of "sanitary nuisance"; proceedings by Department of Health and Rehabilitative Services.

Note: §386.041 enumerates health nuisances, including "dangerous waste materials from manufacturing processes to human or animal life and air pollutants, gases and noisome odors..."

10. Ga. Code Ann. §88-302: actions maintained by State Dept. of Human Resources and County boards, in their own names.

11. Hawaii Rev. Stat.: §§322-1, -2, -4, -11: examination, abatement, right of entry, regulations.

12. Idaho Code §52-205: abatement by any public body or official authorized thereto.

13. Ill. Ann. Stat. ch. 127, §55.08 (Smith-Hurd).

14. Iowa Code Ann. §657.207: nuisances injurious to health (criminal action).

15. Ind. Code Ann. §16-1-4-11 (Burns).

16. Kan. Stat. Ann. §65-159; §65-160: duty of county to prosecute violations of this chapter.

17. Ky. Rev. Stat. §211.210: Dept. for Human Resources; §212.210: Dept. and local health boards; §212.245(6): any health officer may institute action.

18. La. Rev. Stat. §40:14: parish health units; §40-16: supervision of State Dept. of Health and Human Resources.

19. Me. Rev. Stat. Ann. tit. 22, §454: local health officers; tit. 17, §2802: enumeration of public nuisances, including trades offensive to health.

20. Md. Health Code Ann. Art. 43 §§2, 33, 36: State Board of Health and Mental Hygiene; §50: local board; §104: duty of state's attorney in the county or town of offense to prosecute upon complaint made by State Board of Health or its executive officer. §104(a): nuisances dangerous to public health.

21. *Mass. Ann. Laws* ch. 111, §§122-136.

Note: §31C gives the Board of Health jurisdiction to regulate and control atmospheric pollution, including "the emission of smoke, particulate matter, ..., toxic and radioactive substances..." constituting a nuisance.

22. *Mich. Comp. Laws Ann.* §§327.3, .9, .11, .12; §333.2221(2): Dept. of Public Health.

23. *Minn. Stat. Ann.* §145.22(West): city or town health officer.

24. *Miss. Code Ann.* §41-23-13: State Board of Health; notification to proper attorney or health officer to bring action; judge may order abatement.

25. *Mont. Rev. Codes Ann.* §27-30-204: abatement by any authorized public body or officer.

26. *Neb. Rev. Stat.* §17-121: Board of Health to regulate nuisances and enforce all related laws of the state and city (created by 2nd class cities).

27. *Nev. Rev. Stat.* tit. 40, §439.200: State Board of health; §439.360: county board; §439.430: district board; §439.490: every local health officer.

28. *N.H. Rev. Stat. Ann.* §147:1-4: town health officers; §17:18-b: environmental protection division in the attorney general's office may bring public nuisance actions in the name of the state when activities complained of may have a substantial impact on the environment of the State.

29. N.J. Stat. Ann. §§26:1A-26 through 26:1A-30: State Commissioner of Health may send notice to local health boards to abate health nuisances within their jurisdictions; and may institute action in the name of the State to enjoin nuisance if no action taken by local health board. State Commissioner may institute action for nuisances originating outside any local board's jurisdiction; §26:3B: Nuisances Affecting Health.

30. N.M. Stat. Ann. §30-8-8(B): Civil action to abate may be brought in the name of the state by any public officer or private person.

31. N.Y. Pub. Health Law §1300: State Commissioner of Health - powers of investigation. Governor may require examinations into nuisances. §1302: Commissioner may request assistance from board of health of any health district; §1303: local health boards and officers' duties; §1304: authority in local health officer and county commissioners where there is no health board; §1305: right of entry; §1306: abatement costs.

32. N.C. Gen. Stat. §130-128(17)(C): sanitary district boards are authorized to make rules and regulations requiring abatement of health nuisances, and to enforce such rules by criminal or civil action, including injunctive relief; §130-20: local health director.

33. N.D. Cent. Code §42-02-01: action in the name of the state by state health officer, etc.; §23-05-01: local health board; §23-05-04: removal by board at owner's expense; §23-05-06: right of entry.

34. Ohio Rev. Code Ann. §3707.01: city board of health or general health district to abate, prosecute; §3707.021: board may petition court for injunction.

35. Okla. Stat. Ann. tit. 63, §1-1011.

36. Pa. Stat. Ann. tit. 71, §532: Dept. of Health. tit. 53, §§56606, 56608; 24562, 24581, 24882; 37320-37324: 1st, 2nd and 3rd class cities' boards of health.

37. R.I. Gen. Laws §23-1-1: Dept. of Health shall prevent and control...conditions detrimental to the public health.

38. S.D. Codified Laws Ann. §§22-10-5, -6: abatement by authorized public body or officer; §§34-16-5-- 34-16-9: town health officers.

39. Tex. Rev. Civ. Stat. Ann. art. 4477-1, section 3 (Vernon): local health officers; art. 4420-21: State Board of Health; art. 4427: county health officer, art. 4430: city health officer, general health & sanitation duties; suppression of disease in counties & cities.

40. Utah Code Ann. §76-10-806: action by proper official; §26-5-5: local board of health; §26-15-14: city or county health departments.

41. Vt. Stat. Ann. tit. 18, §§609-611: local boards of health or health officers.

42. Va. Code Ann. §21-118: governing bodies of sanitary districts.

43. W. Va. Code §16-3-6: state director of health or any county or municipal health officer is authorized to investigate nuisances and apply to court for injunction.

44. Wis. Stat. Ann. §146.14: Dept. of Public health.

45. Wyo. Stat. Ann. §35-1-240: division of administration.

(B) Powers of Municipalities

1. Ala. Code §6-5-122: action in the name of the city; §11-47-117: general power to abate; §11-47-118: civil action to abate.

2. Ark. Stat. Ann. §19-2303: general powers; §34-103: action in name of state; §34-104, -106: procedure, court decree.

4. Ariz. Rev. Stat. Ann. §9-240(21).

5. Cal. Gov't Code: §38773: legislative body ordinance; §26528: action in name of people of Cal. Cal. Civ. Proc. Code §731: concurrent rights of D.A. and city attorney to bring action. Duty to bring action when directed by county board of supervisors or town or city legislature.

6. Fla. Stat. Ann.: §§60.05, 60.06: action in name of state; court injunctions; §§823.01, 823.05: order from county court to remove public health nuisances; enumeration.

7. Ga. Code Ann.: §§72-201, -202, -302, -313: actions by D.A. in the name of the state; court orders.

8. Idaho Code §52-205: abatement by any public body or official authorized thereto.

9. Ill. Ann. Stat., ch. 11, §60-2 (Smith-Hurd). (Also, enumeration of public nuisances, ch. 100-1/2, §26).

10. Ind. Code Ann. §18-3-1-39 (Burns): town board.

11. Iowa Code Ann. §364.12: abatement by cities in any reasonable manner.

12. Kan. Stat. Ann. §§12-1617e, 13-1417; §60-908: action in name of state.

13. Ky. Rev. Stat. §381.770: 1st class cities; §84.300: 2nd class cities; §85.130: 3rd class cities.

14. Md. Municipal Corporation Charter Code Ann. Art. 23B, §22.

15. Miss. Code Ann. §21-19-1: municipality regulations.

16. *Mo. Ann. Stat.* (Vernon) §77-530: 3rd class cities; §79.380: 4th class cities. (All statutes referring to 1st and 2nd class cities repealed.) §80.090: Incorporated villages.

17. *Mont. Rev. Codes Ann.* §27-30-204: abatement by any authorized public body or officer; §45-8-112: Action in the name of the state.

18. *Neb. Rev. Stat.* §18-1720: all cities and villages; §16-240: 1st class cities; 17-121: 2nd class cities' power to make health regulations; §15-237: Primary cities to provide rules for abatement... §14-102.01: cities of the metropolitan class to make ordinances etc., to promote the public health.

19. *Nev. Rev. Stat.* tit. 21, §266.235: cities and towns; §269.205: unincorporated towns; tit. 26, §244.360: board of county commissioners.

20. *N.H. Rev. Stat. Ann.* §47.17: city councils; §544.3: action in name of state; §§544:28,:30: injunctions; court orders of abatement.

21. *N.M. Stat. Ann.* §30-8-8(B): Civil action may be brought in the name of the state by any public officer or private person.

22. *N.C. Gen. Stat.* §160A-193.

23. *N.D. Cent. Code* §42-02-01: action in the name of the State by State Health officer, state's attorney or any citizen of the affected county.

24. *Ohio Rev. Code Ann.* §3767.03: action in the name of the state. (All of §3767 deals with abatement procedures.) §715.44: municipalities may abate and prosecute.

25. *Okla. Stat. Ann.* tit. 11, §21-121; tit. 50, §16: municipal governing body may define and abate; tit. 50, §17: where impractical for city or town to provide notice and hearing, suit may be brought in the proper district court; tit. 12, §1397: injunctions in name of state.

26. Ore. Rev. Stat. §§221.915, .916: cities; §203.127: board of county commissioners.

27. Pa. Stat. Ann. tit. 53, §§56606, 56608: Boards of Health in 1st class cities; tit. 53, §§24562, 24581, 2482; bureaus of health in 2nd class cities; tit. 53, §§37320-37324: boards of health or governing body in 3rd class cities.

28. R.I. Gen. Laws §10-1-1: action in name of the state; §23-19.2-4, -6,-7: city or town council.

29. S.D. Codified Laws Ann. §21-10-6: abatement by authorized public body or officer without civil action; §21-10-9: civil action by public body or officer.

30. Tex. Rev. Civ. Stat. Ann. art. 1015 (Vernon): governing body of city, town or village; art. 1072: city council.

31. Utah Code Ann. §76-10-806: action in the name of the state by proper county, city or state official; §10-8-60: boards of commissioners and city councils.

32. Vt. Stat. Ann. tit. 24, §2121: selectmen of town and trustees of unincorporated villages may make complaints to court for abatement.

33. Va. Code Ann. §15.1-14: powers of every city or town; §15.1-867: municipal corporation.

34. Wash. Rev. Code §748.220: abatement by any authorized public body or officer.

35. Wis. Stat. Ann. §823.01: action to recover damages may be brought by any person, county, city, village or town; §823.02: action to enjoin in the name of the state.

(C) Criminal Actions - Abatement by Courts Upon Conviction

1. Ill. Ann. Stat. ch. 100-1/2, §29 (Smith-Hurd).
2. Me. Rev. Stat. Ann. tit. 17, §§2702, 2705.
3. Nev. Rev. Stat. tit. 16, §202.480.
4. N.J. Stat. Ann. §2C:33-12.1 (West).
5. N.Y. Penal Law §240.45.
6. Tenn. Code Ann. §23-302,-315: jurisdiction upon (civil and) criminal courts to abate public nuisances in the name of the state; §39-2903: abatement of criminal nuisances injurious to the health of individuals or the public (offensive trade, employment or manufacturing).
7. Va. Code. §48-1.
8. Wash. Rev. Code §9.66.040.

B. Private Rights of Action

The common law provides a private right of action to recover for or to enjoin public nuisances which have caused special, distinct injury to the plaintiffs. In addition, 24 states have statutes granting such a right for statutory, health-related nuisances. Table 3. Several of these states have provisions noting that a public nuisance generally gives no right of action to a private individual, followed by the section giving the right for special damages. Others give a right of action to any person injured in his comfort or the enjoyment of his estate by a public nuisance, without specifying the necessity of having special damages in cases of public nuisance actions; as noted above, the state common law usually requires such special injury.

Table 3

Statutory Rights of Individuals relating to Public Nuisances

1. Ala. Code §6-5-123*.
2. Cal. Civ. Code §3493 (West)*.
3. Colo. Rev. Stat. §25-1-653.
4. Ga. Code Ann. §§72-103, -202*.
5. Idaho Code §§52-204, -111*.
6. Ind. Code Ann. §§34-52-2, -3.
7. Iowa Code Ann. §657.1.
8. Kan. Stat. Ann. §60-908 (injunction only).
9. Me. Rev. Stat. Ann. tit. 17, §270.1.
10. Mass. Ann. Laws ch. 111, §145 (West).
11. Mich. Comp. Laws Ann. ch. 11, §145 (West).

12. *Minn.* *Stat.* *Ann.* §561.01.
13. *Mont.* *Rev.* §27.30-203*.
14. *Nev.* *Rev.* *Stat.* §40.140.
15. *N.Y.* *Real* *Prop.* *Acts.* §841.
16. *N.C.* *Gen.* *Stat.* §1-539.
17. *N.D.* *Cent.* *Code* §42-01-08*.
18. *Okla.* *Stat.* *Ann.* *tit.* 50, §10*.
19. *S.C.* *Code* §44-1-160.
20. *S.D.* *Codified* *Laws* *Ann.* §21-10-9*.
21. *Tenn.* *Code* *Ann.* §23-315 (does not directly grant right of action, but refers to recovery of damages for nuisance.)
22. *Utah* *Code* *Ann.* §78-38-1.
23. *Wash.* *Rev.* *Code* *Ann.* §7.48.020; §7.48.210*.
24. *Wisc.* *Stat.* *Ann.* §823.01*, §823.03 (West).

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* Statute requires special damage.

Several statutes point out that abatement of the public nuisance complained of does not preclude an action to recover damages by a private individual:

1. Mont. Rev. Code Ann. §27-30-104.
2. N.Y. Real Prop. Acts §841.
3. N.D. Cent. Code §42-01-11.
4. S.D. Codified Laws Ann. §21-10-7.
5. Wash. Rev. Code Ann. §748.180.

C. ABATEMENT BY PRIVATE PERSONS

Five states have provisions permitting any person to abate a public nuisance which is specially injurious to him by removing, or, if necessary, destroying the thing, if it can be done without committing a breach of the peace or doing unnecessary injury:

1. Mont. Rev. Code Ann. §27-30-204.
2. N.D. Cent. Code §42-01-10.
3. Okla. Stat. Ann. tit. 50, §12.
4. S.D. Codified Laws Ann. §21-10-6.
5. Wash. Rev. Code Ann. §748.230.

IV. Conclusions

Virtually every state has some provisions, either in state-wide codes or in authorizations of local law, to deal with health nuisances such as hazardous waste dumps. In most cases, the local health board is authorized to investigate conditions, order abatement or removal of nuisances dangerous to public health and safety, and act itself to abate the condition if its order is not complied with. Public health officers and district, city and county attorneys generally have the power to institute proceedings to enjoin maintenance of such nuisances as well. In addition, local governing bodies may usually define and declare nuisances, as well as order their removal, through the passage of ordinances or by-laws. Thus, the states are for the most part adequately equipped to protect the public from public health nuisances by public abatement action.

The case for private statutory rights to recover for injury and damage resulting from public nuisances is less widely available. Only 24 state codes expressly grant private rights of action for public nuisances; furthermore, existence of that right usually depends on proof of special, separate injury by the individuals attempting to recover. Though the relevant statutory provisions, listed in Table 3 , *supra*, are very general, there should be no difficulty in applying them to cases of toxic waste-caused injuries. As for the other states, the common law allows a private right of action on this same basis; thus, courts are likely to look to the state's case law and not only to the statute to determine whether a private right of action exists.

I.

VIABILITY OF TRESPASS ACTIONS TO RECOVER FOR HAZARDOUS WASTE INJURY

TO: Superfund §301(e) Study Group

FROM: Frank P. Grad, Reporter

RE: Viability of Trespass Actions to Recover for Hazardous Waste Injury

DATE: December 1, 1981

Introduction

Trespass has rarely been used as a cause of action for invasion by pollutants. The rare use of trespass in pollution litigation is due to a number of obstacles to recovery encountered by this cause of action. One such obstacle is the requirement that the trespasser act intentionally, negligently, or while conducting an ultrahazardous activity. At common law, a defendant was strictly liable for an invasion of a plaintiff's land; even accidental invasions gave rise to a trespass action. This common law rule has been virtually abandoned, however, so recovery in trespass is precluded absent a showing of negligence, intent or an activity substantially certain to cause a trespass, or an ultrahazardous activity.

Two other obstacles to recovery, weakened over the years, are remnants of the traditional common law distinction between trespass and trespass on the case. Although a direct invasion of the property was a trespass, an indirect invasion, such as the underground seepage of chemicals from the defendant's property to the plaintiff's property, was trespass on the case. This requirement of a direct invasion has been abandoned by nearly all states. The same historical background accounts for the insistence of some courts upon the entry of something tangible, with appreciable mass, and visible to the naked eye, before trespass can be found - so that noxious fumes or microscopic chemical compounds will not be enough. Few state supreme courts have ruled on the issue of particulate size, but some courts have abandoned the common law distinction, allowing a recovery in trespass for invasions by materials that are not "tangible" in the colloquial sense -- such as gaseous matter.

Another obstacle to recovery is the traditional American rule that owners do not have absolute rights to pure underground water. According to the rule, a contamination of a plaintiff's well water by an accidental and non-negligent seepage of chemicals from a defendant's property does not give rise to a trespass action.

Finally, a trespass protects a plaintiff's possessory interest in his property. Courts may require a showing of substantial damage to the property in order to prove injury to the owner's possessory interest.

The trespass cause of action does have two advantages. First, state statutes of limitations for trespass are often longer than those for nuisance or other nontrespassory interferences with a person's property. Second, recent air pollution trespass cases indicate that courts may judge the gravity of the injury in determining whether a trespass actually took place (abandoning the common law rule that even minimal injury gave rise to trespass); once a court determines that a trespass has in fact taken place, however, it will not then "balance" or "weigh" the injury to the plaintiff against the social utility of the toxic substance dumper's activities. This represents an advantage over bringing suit based on nuisance, negligence or some strict liability theories which employ balancing tests.

Intentional, Negligent and Ultrahazardous Trespasses

At common law, a defendant was strictly liable for trespass even if he invaded a plaintiff's property unintentionally and in a non-negligent manner.[1] Today, nearly all states hold that a trespass can occur only where a defendant acts intentionally or negligently, or engages in an ultrahazardous activity.[2] The Restatement (Second) of Torts adopts this view.[3] Some courts, however, would treat either the negligent or ultrahazardous situation as distinct torts of negligence or strict liability, instead of basing liability on trespass. As one commentator has written, this disparity is more a matter of semantics than substance, but makes trespass cases difficult to read on a comparative basis.[4]

The Restatement says that one is subject to liability if he intentionally enters land in the possession of the other, or causes a thing or third party to do so.[5] Intent does not require a desire or will to intrude. Although the mere knowledge and appreciation of a risk of invasion does not constitute intent, courts will generally find intent when the risk becomes a substantial certainty.[6] In hazardous waste litigation, a defendant would rarely trespass with an actual will to do so - the example of the "midnight dumper" would be one such case, but the circumstances of the disposal would make the defendants difficult to identify.

The far more likely situation is that in which the defendant disposes of hazardous wastes with the knowledge that they will almost certainly migrate to the plaintiff's land. The defendant, in these circumstances, would have committed an intentional trespass, according to the Restatement:

> In order that there may be a trespass under this Section, it is not necessary that the foreign matter should be thrown directly and immediately upon the other's land. It is enough that an act is done with knowledge that it will to a substantial certainty result in the entry of foreign matter.[7]

Thus, where a defendant irrigation district knew or had reason to know that the water from its canals was seeping onto an orchard grower's land, the district had committed an intentional trespass.[8] A defendant landowner who on several occasions dumped asphalt so that it ran down a hill on his property onto the plaintiff's adjoining tract and then into a stream which carried them into a pond, killing the fish, also committed an intentional trespass.[9]

When the plaintiff has notified the defendant that an invasion was taking place, any subsequent dumping or invasion would be considered intentional, because it was done with knowledge. The operator of a sanitary landfill who had been notified that the dumping of sludge was causing seepage into the mine and consequent interference with mining operations, committed an intentional trespass when he continued dumping the sludge.[10] In the case of an abandoned dumpsite, establishing intent by prior notification is impossible for a plaintiff injured by seepage of hazardous substances from an abandoned dumpsite, where the plaintiff is unable to identify the former dumper or landowner.

Another difficulty in proving intent is the reluctance of a court to hold that the defendant knew or should have known that toxic chemicals dumped on an adjoining property would migrate through a permeable soil layer onto the plaintiff's property. This reluctance was demonstrated in Phillips v. Sun Oil Co., where the court stated, "Even when the polluting material has been deliberately put onto, or into the defendant's land, he is not liable for his neighbor's damage therefrom, unless he (the defendant) had good reason to know or expect that subterranean and other conditions were such that there would be passage from the defendant's to the plaintiff's land."[11]

Direct and Indirect Invasions

In the past, trespass on the case required proof of negligence or intent, while trespass did not.[12] Under the old common law rule, a direct invasion of property gave rise to an action in trespass, while an indirect invasion led to an action in trespass on the case. If the defendant threw water on his neighbor's land, it was a trespass; but if he merely obstructed or diverted a stream so that the water ultimately flowed onto the premises of the plaintiff, the action was on the case.[13] The Restatement has abandoned this distinction, treating indirect invasions ("causing entry of a thing") as a trespass.[14] Only a few jurisdictions continue to recognize this common law restriction on the trespass action, but in those states, a migration of leachate containing organic compounds onto the plaintiff's land would probably be treated on the case or as a nuisance rather than as trespass.[15] For practical purposes, the surviving distinction is between trespass and nuisance.

Today, only a few jurisdictions distinguish between trespass and trespass on the case; in most jurisdictions, trespass actions must be based on intent, negligence, or an ultrahazardous activity.

A critical difference does often remain between actions in trespass and other nontrespassory interferences with property - a longer statute of limitations usually applies for the former. Alabama, for example, has a six year statute of limitations for trespass and only a one year statute for nontrespassory interferences.[16]

Particulate Size

The particulate size may preclude recovery in trespass; a plaintiff may have to base a claim for an interference with his property on trespass on the case, nuisance, or some other tort theory. This obstacle is also a remnant of the historic distinction between trespass and case, and some courts do not distinguish between the requirement of a "tangible" invasion and the requirement of a direct invasion. At common law, courts required the entry of something tangible, with appreciable mass, and visible to the naked eye, for a trespass to be found. Although some courts have expressly abandoned this requirement, few state supreme courts have ruled on the issue of whether an invasion by microscopic, intangible, or even tiny particles constitutes a trespass. Many jurisdictions probably would follow the lead of Oregon and Alabama[17] in holding that twentieth century scientific theory makes the particulate size a meaningless criterion for determining whether a trespassory invasion took place.[18] Where the requirement is still the law, some courts may cling to the distinction in order to limit the scope of the trespass action.

Although no courts have ruled on whether an invasion by microscopic hazardous particulates constitutes a trespass, a series of cases involving damage from blasting operations and from airborne pollutants represents the best parallel for hazardous waste cases. Some states simply treat blasting as an ultrahazardous activity and recovery is based on strict liability. Other jurisdictions, however, have not considered blasting to be an ultrahazardous activity. In a few of these states, courts have allowed an action in trespass only where the damage from blasting results from a hurling of rocks (tangible materials) onto the property, and not from blast vibrations or concussions. Interestingly, Alabama still follows this rule in blasting cases[19] even though its Supreme Court held that the invasion of microscopic airborne pollutants is a trespass. The distinction between the hurling of rocks and vibrations lingers on in only a small number of states, however, and some commentators predict that New York's recent rejection of the distinction[20] has given it its death blow.

Particulate size has been an obstacle to recovery in trespass in airborne pollutant cases also. The Supreme Court of Iowa denied recovery in trespass for damages resulting from noxious gases and oders emitted from the city's garbage disposal plant, and instead treated the interference as a nuisance.[21] In the Washington case of Arvidson v. Reynolds Metals Co., a federal district court held that depositing fluorides on a landowner's property from the defendant's aluminum plant gave rise to an action on the case, and not a trespass.[22]

Another court refused to find a trespass when more tangible airborne materials such as small particles of cement, dust and smoke settle settled upon a landowner's property.[23]

As with a finding of an indirect invasion, a court's decision that the invading particulates' intangible nature bars a trespass action may result in the application of a shorter statute of limitations for nontrespassory invasion. In Arvidson, for example, the court's holding that the invasion of fluorides was not a trespass resulted in its application of a two year, rather than a three year statute of limitations.[24]

Some jurisdictions have begun to dismiss the size of an invading particle as a dated and irrelevant factor in determining whether a trespass occurred. These courts have recognized that the grievousness of the invasion may not be directly related to particulate size and have begun to find a trespass from the entry of airborne pollutants. In Martin v. Reynolds Metals Co., the Oregon Supreme Court announced a new test to judge the character of an invasion:

> If then we must look to the character of the instrumentality, which is used in making an intrusion upon another's land, we prefer to emphasize the object's energy or force rather than its size. Viewed in this way, we may define trespass as any intrusion which invades the possessor's protected interest in exclusive possession, whether that intrusion is by visible or invisible pieces of matter or by energy which can be measured only by the mathematical language of the physicist.[25]

The court also adopted a new two-step test to determine when an invasion of this sort is to be considered a trespass. First, the court should ask whether the intrusion has violated a legally protected interest of the plaintiff. Then, it should ask whether or not the injury caused by that intrusion is of a sufficiently substantial nature. Thus, ordinarily the casting of a grain of sand upon another's land would not be a trespass because the intrusion is not substantial.[26] One would suspect, though, that courts adopting this new test would be willing to hold that an intrusion by hazardous wastes, like one by airborne pollutants, is of a sufficiently substantial nature, if damages can be shown.

Alabama[27] has recently adopted the test set forth in Martin v. Reynolds, and other states have held that an invasion by minute or microscopic particles can constitute a trespass.[28] Under this test, the plaintiff's proof is still considerably more difficult to satisfy than in the case of invasion by larger particles. The mere fact of the invasion may have to be proved by expert scientific testimony.[29]

Even in jurisdictions where an invasion by minute particulates is treated as a trespass, courts may draw distinctions that limit recovery. In Alabama, for example, in the recent case of Born v. Exxon Corp., the Alabama Supreme Court held that the presence of odors on plaintiff's property, caused by defendant's oil treatment facility, did not constitute a trespass because there was no evidence that any particulate matter was deposited upon the land itself.[30] The court distinguished the earlier case of Borland v. Sanders Lead Co., Inc., where it had held that the depositing of microscopic lead particulates and fluorides on plaintiff's land was grounds for an action in trespass.[31] Arguments that an odor indicates the presence of particulate matter and that the

Restatement[32] allows recovery for above-ground trespasses evidently did not persuade the Born court. Nevertheless, some courts probably would recognize that the presence of toxic substances can often be proven only with the aid of scientific detecting methods, and would give credence to such methods, though this may not be conclusive on the issue of trespass.[33]

Underground Trespass

A trespass may be on, beneath, or above the earth's surface, with an exception for overflying aircraft.[34] Prosser states that a trespass action should be permitted in an underground invasion only where some damage to the surface results, or where there is some interference with a present or prospective use that can be made of the property.[35] Despite the availability of the trespass action for underground intrusions, a plaintiff may face difficulty in maintaining a cause of action for underground migration of hazardous substances due to the American rule that property owners do not have absolute rights to pure underground water.

Under the English rule, a property owner had rights to the percolating groundwater. Many American courts followed this rule during the late 19th and early 20th centuries and, using nuisance terminology, imposed liability for pollution of percolating water regardless of whether the defendant was negligent. With the continued industrialization of the nation, however, most jurisdictions abandoned this view.[36] In the New York case of Dillon v. Acme Oil Co.,[37] the court held that a legitimate business is not liable for contamination of groundwater in the absence of negligence or knowledge that such contamination is likely to result from its activities (the dumping of chemicals on the defendant's property, resulting in an underground migration to the plaintiff's property and pollution of his well held to be nonnegligent). This case laid the foundation for the American rule, which recognized that both agrarian landowners and industrial landowners have the right to make reasonable use of their property. Therefore, the rule did not give nonindustrial landowners absolute rights to pure underground water. Non-negligent industrial users could, by accidentally polluting groundwater, completely destroy domestic or agricultural uses without incurring liability.[38]

The American rule has been followed in most states.[39] It probably represents a major obstacle to recovery in trespass for contamination of percolating surface waters or ground waters by migration of a leachate containing organic compounds through the permeable soil layer. But a plaintiff may still recover under the American rule if the defendant's activity is ultrahazardous, even though non-negligent. A court might hold that the dumping of hazardous wastes represents an ultrahazardous activity for which liability for trespass may be imposed. Other courts, because of a difference in semantics (discussed supra on p. 3) would not treat the matter as a trespass at all, but instead might allow recovery on the basis of strict liability. Whether an activity is ultrahazardous under the particular circumstances is a question of law for the court.[40]

Statute of Limitations

A potential major advantage of a trespass action for hazardous waste injury is its longer statute of limitations in many states when compared to statutes for nuisance or other non-trespassory infringement of property rights. As discussed previously, Washington and Alabama have longer statutes of limitations for trespass than for nuisance or an action on the case.[41] The same is true in New Jersey and Oregon.[42] This advantage is lost, however, if the court holds that the invasion is not a true trespass, but instead represents nuisance or an action on the case.[43]

Another aspect of a trespass action that is favorable to plaintiffs in hazardous pollution cases is the willingness of many courts to apply the discovery rule in the circumstances of an underground trespass. In Diamond v. N.J. Bell Telephone Co., the New Jersey Supreme Court followed the example of other courts in holding that "to permit the running of the limitations period while a plaintiff's injury is hidden from observation beneath the ground would be overly harsh and unjust."[44] Under this principle, the statute of limitations does not commence until the time of the actual discovery of the underground trespass, or until the moment when discovery reasonably becomes possible.

Even in jurisdictions that do not recognize the subterranean discovery rule, an underground intrusion may be considered a continuing trespass giving rise to successive causes of action until the intrusion ends.[45] The Restatement recognizes this theory of continuing trespass[46] and a continuing settling of airborne pollutants into a landowner's property has been held to be one.[47] One would expect that a continuous leaching of toxic substances through the soil or the continuing spread of noxious fumes would also be a continuous trespass, giving rise to successive causes of action.

Balancing of Interests

Unlike the torts of nuisance, negligence and strict liability, trespass has traditionally not required a balancing of the gravity of the harm done against the social utility to the defendant or the degree of risk. An intentional, negligent or ultrahazardous invasion of the plaintiff's property gave rise to an action in trespass, and the defendant would be liable for nominal damages even if he caused no injury to the land[48] or performed a beneficial service to the community.[49] In Martin v. Reynolds, however, the court's two-step test to determine whether an invasion of tiny airborne fluoride particles constituted an invasion in fact resorted to a balancing process in determining whether or not the injury caused by the intrusion was of a sufficiently substantial nature. The court in effect coalesced trespass and nuisance:

> The tort of trespass involves a weighing process similar to that involved in the law of nuisance, although to a more limited extent than in nuisance and for a different purpose, i.e., in the one case to define the possessor's interest in exclusive possession, and in the other to define the possessor's interest, use and enjoyment... Here it is apparent that the law of trespass and the law of nuisance come very close to merging.[50]

The same balancing approach was utilized by the Alabama Supreme Court in Borland v. Sanders Lead Co., Inc.[51] This test of whether or not the injury caused by the intrusion is of a sufficiently substantial nature may also be applied in a hazardous waste case based on trespass.

Necessity of Possession

A cause of action based on trespass protects only the interest in exclusive possession of the property. Any person in the actual and exclusive possession of the property may maintain the action. An owner who is not in possession cannot sue in trespass.[52] Thus, a landlord cannot bring suit for trespass to land in the occupation of his tenant. He can maintain an action on the case[53] but this alternative has many drawbacks discussed above.

Trespass protects the plaintiff's possessory interest in his property; nuisance protects the plaintiff's use and enjoyment of the property. Although this distinction may appear to have little practical significance, the Borland court suggests that it may be yet another means for barring an action in trespass brought for an invasion of noxious fumes or odors from hazardous wastes. The court stated:

> For an indirect invasion to amount to an actionable trespass, there must be an interference with plaintiff's possessory interest; that is, through the defendant's intentional conduct, and with reasonable foreseeability, some substance has entered upon the land itself, affecting the nature and character, and causing substantial actual damage to the res. For example, if the smoke or polluting substance emitting from a defendant's operation causes discomfort and annoyance to the plaintiff in his use and enjoyment of the property, then the plaintiff's remedy is for nuisance, but if, as a result of the defendant's operation, the polluting substance is deposited upon the plaintiff's property, thus interfering with his exclusive possessory interest by causing substantial damage to the res, then the plaintiff may seek his remedy in trespass, though his alternative remedy in nuisance may co-exist [emphasis added].[54]

One could argue that offensive odors or toxic fumes are likely to lower property values, and thus cause substantial damage to the property, but it appears that Alabama is unwilling to accept such a proposition.

Damages

A plaintiff whose possessory interest in his property has been invaded can recover nominal damages, as a matter of law, even without a showing of any injury.[55] Compensatory damages may also be recovered for injuries caused by the trespasser.[56] "A trespass on land subjects the trespasser to liability for physical harm to the possession of the land at the time of the trespass, or to the land or to its things, or to members of his household or to their things, caused by any act done, activity carried on, or condition created by the trespasser, irrespective of whether his condition is such as would subject him to liability were he not a trespasser."[57] Furthermore, recovery is allowed even where the injury could not reasonably have been anticipated at the time of the unlawful entry.[58] In pollution cases, some of these damages have included consequential ones for discomfort, annoyance, inconvenience, personal injury and emotional distress.[59]

A plaintiff may also recover damages for injury or loss in value to his buildings, crops or livestock. The measure of damages for buildings is the reduction in the value of the building following its exposure to the pollutants; with crops and livestock, the measure is the reduction in value from that value which could otherwise have been expected.[60] But the burden of proof is on the plaintiff to show the causal connection between the invasion and the damage,[61] and the demonstration of loss of property value from hazardous waste as well as other injuries, particularly health problems, may be extremely difficult to prove. They would undoubtedly require scientific testimony.

Finally, a court may award punitive damages to the property owner. Their award is based upon the character of the defendant's act, and different courts have phrased the standard in various ways. In Rushing v. Hooper-McDonald, the Alabama Supreme Court stated that punitive damages can be recovered if the trespass is "attended by rudeness, wantonness, recklessness or an insulting manner or is accompanied by circumstances of fraud or malice, oppression, aggravation or gross negligence."[62] Another court has said that if compensatory damages will not deter the activity of the defendant, there is ample justification for an award of punitive damages.[63]

A more useful standard in hazardous waste cases was set forth in Davis v. Georgia-Pacific Corporation.[64] There, the Oregon Supreme Court stated that in considering punitive damages, "it was proper for the jury to be apprised of the utility of the defendant's operations and its efforts, as compared with others similarly engaged, to prevent damage to surrounding properties."[65] Thus, while a demonstration by the defendant polluter that he used state of the art technology at the time of disposal would probably make little difference when considering compensatory damages, it would probably bar the awarding of punitive damages. As with compensatory damages, the plaintiff bears the burden of proof on the issue of punitive damages.[66]

Conclusion

Trespass is a relatively weak cause of action in hazardous waste cases. A plaintiff would have to overcome several major obstacles to base his claim for relief on this tort action. Other torts, especially nuisance, are more likely to provide remedies for injuries caused by hazardous wastes.

Although a plaintiff could base his trespass action on the defendant's ultrahazardous activity or negligence, as well as on an intentional trespass, doing so would offer no advantage, because he could bring his action directly in strict liability or negligence.

If a claim is based on trespass, a plaintiff may have difficulty proving that a defendant dumper or maintainer of a dump knew with substantial certainty that the hazardous substances would migrate to the plaintiff's property. This requirement would make recovery difficult for the injured plaintiff, particularly in a situation where the defendant used state of the art methods in dumping or maintenance. The use of such methods would strengthen the defendant's claim that he did not know the hazardous substances would escape and migrate, i.e., that the trespass was not intentional. Recovery would be much easier, of course, where the defendant actually dumped the hazardous substances on the plaintiff's property. If the plaintiff cannot prove an intentional trespass, recovery may be precluded by the American rule that negligence or an ultrahazardous activity must be shown to hold a defendant liable for pollution of the plaintiff's underground water.

Another obstacle to recovery in trespass is the requirement of an invasion of the plaintiff's property. In contrast, strict liability or negligence actions would require no such entry. A child injured by hazardous substances on a neighboring field, for example, could not base an action on trespass because no invasion of his family's property took place, but might base an action on negligence or strict liability.

Nuisance also does not require an actual invasion; interference with the plaintiff's use and enjoyment of his property is enough.

In traditional actions for interferences with the plaintiff's property, trespass did enjoy one strong advantage over nuisance, assuming an invasion was proved. As noted previously, nuisance required an unreasonable interference with use and enjoyment for recovery; trespass required only an invasion. Thus, an invasion which caused only slight injury would still be a trespass and would allow the plaintiff to recover.

This advantage appears to be lost in the air pollution (and presumably, hazardous waste) cases, where the willingness of two states to abandon the particulate size requirement for trespass has been coupled with a new weighing process to determine whether the intrusion is substantial enough to warrant a finding of trespass.[67] Thus, these courts have largely coalesced trespass and nuisance and have adopted a balancing approach very similar to that employed in nuisance cases. In fact, with invasions by microscopic substances, a plaintiff may have to show more substantial damage to his property to win a trespass action than to win a nuisance action.[68]

A final advantage of the trespass action - assuming the plaintiff can overcome the major obstacles discussed above - is that in many states, the statute of limitations is longer than for other tort actions. In spite of some marginal advantages, the cause of action for trespass provides little basis for the development of viable remedies for injuries from hazardous wastes.

FOOTNOTES

*This memorandum is based on research by David P. Novello, Columbia '83, research assistant, L.D.R.F.

1. W. PROSSER, HANDBOOK ON THE LAW OF TORTS, 63-64 (4th ed. 1972).

2. *Id.* at 64.

3. Restatement (Second) of Torts §§158, 165 (1965).

4. Ginsberg and Weiss, *Common Law Liability for Toxic Torts: A Phantom Remedy*, 9 Hofstra L. Rev. 859, 915(1981).

5. Restatement (Second) of Torts §158 (1965).

6. PROSSER, *supra* note 1, at 32.

7. Restatement (Second) of Torts §158, Comment i (1965).

8. Furrer v. Talent Irrigation District, 258 Ore. 494, 466 P.2d 605, 615 (1971).

9. Rushing v. Hooper-McDonald, 300 So.2d 94, 97 (Ala. 1974). *See also* Atlas Chemical Indus. Inc. v. Anderson, 514 S.W.2d 309 (Tex. Ct. Civ. App. 1974), *aff'd* 524 S.W.2d 681 (Tex. 1975) (owner of carbon processing plant that discharged effluent into a stream liable for all foreseeable damages resulting from the harm caused by the effluent).

10. Curry Coal Co. v. Arnoni Co., 439 Pa. 114, 266 A.2d 678, 683 (1970). The court also held that the independent contractor which had done the actual dumping and the steel company which had engaged the independent contractorto truck the sludge to the sanitary landfill were not liable because the plaintiff failed to establish their negligence. Neither party had been informed of the seepage.

11. 307 N.Y. 328, 121 N.E.2d 249 (1954)(court held that gasoline that seeped from defendant's underground tank onto plaintiff's land did not constitute a trespass. *See also*, Dillon v. Acme Oil Co., 49 Hun 565, 2 N.Y.S. 289 (1888).

12. PROSSER, *supra* note 1, at 65.

13. *Id*.

14. Restatement (Second) of Torts §158, Comment i (1965).

15. *See*, *e.g.*, Arvidson v. Reynolds Metals Co., 125 F. Supp. 481, 486 (W.D. Wash. 1954), *aff'd* 236 F.2d 224 (9th Cir. 1956), *cert*. *denied* 352 U.S. 968 (1957)(settling of airborne fluorides on plaintiff's land from defendant's aluminum plant was trespass on the case, and not trespass); City of Fairhope v. Radcliffe, 42 Ala. App. 224, 263 So.2d 682, 683 (1972)(overflow of city sewer line causing flooding to plaintiff's home was trespass on the case, and not trespass).

16. Ala. Code tit. 6, §§2-34, 2-39 (1975). *See* City of Fairhope v. Radcliffe, 48 Ala. App. 224, 263 So.2d 682, 683.

17. Martin v. Reynolds Metals Co., 221 Ore. 86, 342 P.2d 790 (1959), *cert*. *denied* 362 U.S. 918 (1959).

18. *See generally* GRAD, TREATISE ON ENVIRONMENTAL LAW, especially pp. 2-30 - 2-33 which argues for a new remedy that blends trespass and nuisance.

19. Coalite, Inc. v. Aldridge, 285 Ala. 137, 229 So.2d 539, 540 (1969).

20. Spano v. Perini Corp., 25 N.Y.2d 11, 302 N.Y.S. 2d 527, 250 N.E. 2d. 31 (1969).

21. Ryan v. Emmetsburg, 232 Iowa 600, 4 N.W.2d 435, 438 (1942).

22. 125 F. Supp. 481 (1954).

23. Thackery v. Union Portland Cement Co., 64 Utah 437, 231 P. 813 (1924)(landowner alleged company's operation of a cement plant caused injury to his farmland, livestock, crops and residence).

24. 125 F. Supp. 481 at 487.

25. 221 Ore. 86, 342 P.2d 790, 794 (1954)(court held that settling of fluorides from defendant's aluminum smelter plant onto plaintiff's land constituted a trespass).

26. *Id*. at 794-795.

27. Borland v. Sanders Lead Co., 369 So.2d 523 (Ala. 1979)(court held that damage to farmland caused by a lead company's failure to control emissions from its smelter constituted a trespass against plaintiff's property).

28. E.g., Roberts v. Permanente Corp., 188 Cal. App. 526, 10 Cal. Rptr. 519 (1st Dist. 1961)(landowners recovered for settling of dust and other substances on their property from defendant's cement plant; Sheppard Envelope Co. v. Arcade Malleable Iron Co., 335 Mass. 180, 138 N.E.2d 777 (1956)(falling of cinders and other gritty substances from defendant iron works); B & R Luncheonette, Inc. v. Fairmont Theatre Corp., 278 App. Div. 808, 104 N.Y.S.2d 799 (1951)(spray from the cooling tower on the roof of a theatre falling onto the luncheonette's rear yard).

29. GRAD, supra note 18, at 2-41, §2.02.

30. 338 So.2d 933, 934 (Ala. 1980).

31. 369 So.2d 523 (1979).

32. Restatement (Second) of Torts §159 (1965).

33. Fairview Farms, Inc. v. Reynolds Metals Co., 176 F. Supp. 178 (D. Ore. 1959). But see Arvidson v. Reynolds Metals Co., 125 F. Supp. 481 at 486.

34. Restatement (Second) of Torts §159 (1965).

35. PROSSER, supra note 1, at 73.

36. For a detailed analytical discussion of the pollution of underground waters, see Grad, supra note 18, at §3.05.

37. 49 Hun. 565, 2 N.Y.S. 289 (1888).

38. Ginsberg and Weiss, supra note 4, at 860.

39. See, e.g., Trillinghorn v. Alaska Hous. Auth., 109 F. Supp. 924 (D. Alaska 1953); Sloss-Sheffield Steel & Iron Co. v. Wilkes, 231 Ala. 511, 165 So. 764 (1936); Phillips v. Sun Oil Co., 307 N.Y. 328, 121 N.E.2d 249 (1954).

40. Hudson v. Peavey Oil Co., 279 Ore. 3, 566 P.2d 175 (1971).

41. See text accompanying notes 16 and 24 supra.

42. J. Tauberman, Compensation for Environmental Pollution: An Overview of Salient Legal and Practical Issues, in TOXIC SUBSTANCES AND HAZARDOUS WASTES 316 (Environmental Law Institute 1980); Martin v. Reynolds Metals Co., 221 Ore. 86, 342 P.2d 790 at 794.

43. Arvidson v. Reynolds Metals Co., 125 F. Supp. 481 at 487. See also, GRAD, supra note 18.

44. 51 N.J. 594, 600, 242 A.2d 622, 625 (1968); See also Cole v. Eastern Gas and Fuel Associates, 322 F.2d 506, 510-511 (4th Cir. 1963); Lewey v. H.C. Frick Coke Co., 166 Pa. 536, 31 A.261 (1895).

45. E.g., 509 Sixth Ave. Corp. v. New York City Transit Authority, 15 N.Y.2d 48, 255 N.Y.S.2d 89, 486 N.E.2d 486, 488 (1964).

46. Restatement (Second) of Torts §161, comment b (1965).

47. R.L. Renken v. Harvey Aluminum Inc., 226 F. Supp. 169, 173 (D. Ore. 1963)(continual settling of fluorides from aluminum plant); Sheppard Envelope Co. v. Arcade Malleable Iron Co., 335 Mass. 180, 138 N.E.2d 777 (1956)(continuous falling of cinders and other gritty substances from iron works).

48. PROSSER, supra note 1, at 66.

49. E.g., Furrer v. Talent Irrigation District, 258 Ore. 494, 466 P.2d 605, 613 (1971).

50. Martin v. Reynolds Metals Co., 221 Ore. 86, 342 P.2d 790, 795. See also Davis v. Georgia-Pacific Corp., 251 Ore. 239, 445 P.2d 481, 483 (1968).

51. 369 So.2d 523 (Ala. 1979).

52. PROSSER, supra note 1, at 69.

53. Id.

54. 369 So.2d 523 at 529-30.

55. E.g., Reynolds Metals Co. v. Lampert, 316 F.2d 272, 275 (9th Cir. 1963).

56. PROSSER, supra note 1, at 67.

57. Restatement (Second) of Torts §162 (1965).

58. PROSSER, supra note 1, at 67.

59. Rushing v. Hooper-McDonald, 300 So.2d 94, 98-99 (Ala. 1974); Lunda v. Matthews, 46 Ore. App. 701, 613 P.2d 63, 67 (1980).

60. GRAD, supra note 18, at §2-46.

61. Id. at §2-42.

62. 300 So.2d 94, 98 (1974); See also Reynolds Metals Co. v. Lampert, 316 F.2d 272, 275 (9th Cir. 1963).

63. Reynolds Metals Co. v. Lampert, 316 F.2d 272, 275 (9th Cir. 1963).

64. 251 Ore. 239, 445 P.2d 481 (1968).

65. Id. at 484.

66. GRAD, supra note 18, at 2-43.

67. Martin v. Reynolds Metals Co., 221 Ore. 86, 342 P.2d 790, 794; Borland v. Sanders Lead Co., 369 So.2d 523, 530.

68. Borland v. Sanders Lead Co., 369 So.2d 523, 530.

J.

REVIEW OF AVAILABLE INFORMATION ON THE HEALTH EFFECTS OF HAZARDOUS WASTE DISPOSAL

APPENDIX J

REVIEW OF AVAILABLE INFORMATION ON THE HEALTH EFFECTS OF HAZARDOUS WASTE DISPOSAL

Introduction

The development of scientific evidence on the relationship between exposure to hazardous waste dump sites and potential harmful human health effects is still in the theoretical stages. There is wide agreement in the scientific community that although exposure to toxic chemicals does present risks to human health, the degree and magnitude of that risk has yet to be established.[1] This uncertainty is the result of several factors, some of them inherent in the nature of the chemicals themselves.

For example, in his article "Aspects of Risk Assessment Strategy,"[2] Dr. Peter Voytek concludes that although it is possible to perform risk assessments on individual chemicals for which adequate toxicity and exposure data exist, such reliable data will be available for only a small percentage of the identifiable chemicals at most dump sites.[3] This lack of scientifically sound information on the toxicity of individual chemicals is combined with a lack of experience in testing for the effects of complex mixtures of chemicals, such as was found at Love Canal.[4] "[O]ur inability to anticipate synergistic and antagonistic actions among chemicals makes it impossible to perform total risk assessments."[5] In addition, exposure conditions for humans are extremely diverse — the greatest risk may be found in contamination of drinking water, although exposure through living in close proximity to a site is also possible, and as noted above, people are usually exposed to complex combinations of chemicals rather than to a single identifiable element.[6]

Although research into the potential health effects of exposure to toxic substances is an ongoing effort, it must be noted that the usefulness of epidemiological studies currently being conducted may be limited by several factors, including the lack of adequate exposure information, the relatively small number of people affected at a particular site, the lack of specificity of common indicators of disease, and inadequate experience or instruction for health care professionals in the effects of chemicals on human populations.[7] New tests such as those which might measure the effects of toxic chemicals on the human nervous and reproductive systems, and chemical changes in macromolecules have yet to be developed to bolster the reliability of these scientific studies.[8]

Finally, the time element must be considered in any evaluation of the damage caused to human health by exposure to hazardous wastes. Although any large dumpsite may contain dozens of carcinogenic chemicals, the latent nature of cancer might delay its appearance for several years from the time of exposure, thus increasing the difficulty of establishing a direct causal relationship between the disease and the exposure.

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1. Senate Environment and Public Works Committee, *Health Effects of Toxic Pollution: A Report from the Surgeon General and a Brief Review of Selected Environmental Contamination Accidents With a Potential for Health Effects*, 96th Cong., 2d Sess. (Cmte. Print, Serial No. 96-15)(Aug. 1980) at p. _____. [Hereinafter cited as "Surgeon General's Report."]

2. Voytek, Peter E., *Aspects of Risk Assessment Strategy*. Printed in ASSESSMENT OF HEALTH EFFECTS *AT CHEMICAL DISPOSAL SITES: PROCEEDINGS* OF A SYMPOSIUM HELD IN NEW YORK CITY ON JUNE 1-2, 1981 BY THE LIFE AND SCIENCES PUBLIC POLICY PROGRAM OF THE ROCKEFELLER UNIVERSITY. William W. Lowrance, Ed.

3. Voytek, *supra*, at p. _____.

4. 82 different chemicals were identified at the Love Canal dump site in Niagara Falls, New York, which created an environmental disaster affecting at least 1100 families. Surgeon General's Report, *supra*, at p. _____.

5. Voytek, *supra*, at p. _____.

6. Surgeon General's Report, supra, at p. _____.

7. *Id.*, p. _____.

8. *Id.*, p. _____.

SELECTED HAZARDOUS WASTE EXPOSURE INCIDENTS 1970-1981

KEY

MU = mutagenic
CA = carcinogenic
TER = teratogenic
nat. res. = natural resources
res. related = residence related
acute med. = acute medical effects
latent med. = latent medical effects

Note: These incidents are drawn from SIX CASE STUDIES and CEQ ENVIRONMENTAL QUALITY 1970-1980, plus DISCOVER Magazine and one 1981 Pa. case.

I. Industrial Wastes in Water

State	Location	Type of pollution and date discovered	Source of pollution	Types of Injuries	Compensation sought/obtained	Reference
N.J.	South Brunswick	Trichloroethylene (TCE), 1530 ppb; trichloroethane, 965 ppb; chloroform, 420 ppb; carbon tetrachloride, 400 ppb; xylenes, 300 ppb; toluene, 260 ppb; benzene, 230 ppb. In a family drinking water well.	Ground water pollution due to dumping of industrial wastes into a nearby sandy pit used as a disposal site.	Latent med.: possible CA, TER, Mu. Nat. res. groundwater polluted res. related: family well closed other neighboring wells also polluted. Possible derease in property value		80 CEQ at 82-83. See Letter from Francis T. Brezenski Laboratory Director, U.S. EPA Region II, to William Althoff, Dept. of Spec. Services, N.J. D.E.P. 5/12/76;

State	Location	Type & Date	Source	Types of Injuries	Compensation	Reference
						Robert H. Harris, Staff scientist, Env. Def. Fund, memo. and attachments to Ruffin Harris, 10/12/79.
PA.	Montgomery City	Vinyl chloride 1,1-dichloroethylene; trichloroethylene; benzene; tetrachloroethylene; 1,2-dichloroehtane discharged into Skippach Creek	leachate from land fill	latent med. Possible CA, MU, TER. res. related contamination of local drinking water nat. res. ground water pollution	R.C.R.A. clean-up	O'Leary v. Moyer's Landfill, Inc., 516 F. Supp. 517 (E.D. Pa. 1981)
N.J.	Atlantic City	Benzene, arsenic et al. in private wells of at least 35 homes plus 7 of the 12 municipal wells 1980	Seepage of industrial waste, stored on land owned by Charles Price, into groundwater.	latent med. possible CA, MU, TER, kidney & liver damage, nervous disorders. So far one case of kidney damage and cancer death, and one case of chemically induced epilepsy may be attributed to contaminated drinking water.		DISCOVER magazine. March 1982 at 76-80

State	Location	Type and date	Source	Types of Injuries	Compensation	Reference
N.J.	Atlantic City, cont'd.			*Nat. res.* groundwater contaminated *res. related* 35 family wells and 7 municipal wells closed. Property devaluation. *Income*: possible loss of gambling income if water supplies inadequate to meet Atlantic City needs.		
N.Y.	Long Island	1980 NYPIRG report reveals all 3 L.I. acquifers are seriously contaminated, affecting drinking water of 3,000,000 people.	Industrial wastes, discharges from municipal treatment plants; runoff from highways	*Latent med:* possible MU, CA. *Nat. res.* all underground water polluted		80 CEQ at 82. *See* Hang and Salvo, *Toxics on Tap: Chemical Contamination of Long Island Drinking Water Supplies*, (New York Public Interest Research Group, Inc. 1980) at II-34.
COL.	Rocky Mtn. Arsenal	toxic substances in wells up to 8 miles away. 1980?	waste products from army production of nerve gas and pesticides	pollution of wells, crop damage	$6,000,000 now being spent to provide treatment system; clay containment trench dug around northern edge of the arsenal	DISCOVER magazine March 1982 at 80

STATE	LOCATION	TYPE & DATE	SOURCE	TYPES OF INJURIES	COMPENSATION	REFERENCE
CA.	San Gabriel Valley	TCE contamination of 37 public wells, up to levels of 600 ppb (See, e.g., Mass. maximum allowable TCE levels of 10 ppb)	Multiple widespread sources	37 wells in 13 cities serving over 400,000 people had to be closed. latent med: possible CA, MU.		80 CEQ at 82. For further information, contact Mr. Louis Schinazi, Reg. Water Control Bd., L.A.
CA.	Sacramento	TCE concentrations up to 480 ppb found in 19 rural wells serving pvt. homes & bus. 1979		Lat. med: possible CA, MU. res. related: 19 rural wells closed, serving pvt. homes & bus.		80 CEQ at 82. See Taylor, "TCE in Water: How Much Cancer Risk?" L.A. Times, 9/24/79 p. 41
MASS.	Statewide	Chemical contamination of public and private wells, including TCE concentrations exceeding 900 ppb. Maximum allowed by state law is 10 ppb. 1979		1/3 of Mass. 351 communities were found to have contaminated water Private and public wells were closed or restricted in 22 towns. All municipal wells in Rowley and Groveland, and 1/3 of all wells in N. Reading were closed. latent med: possible CA, MU		80 CEQ at 82. See Comm. of Mass. Sepc. Legis. Commission on Water Supply, "Chemical Contamination Working Paper for Water Quality Task Force," (Boston, 1979) at pp. 5, 21, 23, 27.
MICH.	St. Louis	TRIS (tris (2,3-dibromopropyl) phosphate), DDT and benzene seeping from dumpsite into Pine River and onto golf course built partially atop new closed site. 1979, TER.	Velsicol Chemical Co. (formerly Michigan Chemical Co.)	latent med.: possible CA, MU, TER.		80 CEQ at 215-216.

State	Location	Type and Date	Source	Types of Injuries	Compensation	Reference
MICH.	Gartiot County Landfill	100,000 lbs. of PBB plus other brominated and chlorinated organic chemicals. (case related to St. Louis, Mich. case, supra.)	Velsicol and Michigan Chemical Cos. plants and dumpsite	Workers allege stress, swollen joints, headsches and other ailments. Workers claim Velsicol/Mich. failed to warn them of the dangers of the chemicals produced and disposed of by the plant. latent med.: possible CA, MU, TER.	Workers have sued for $250,000,000. See Shunk et al. v. Northwest Industries et al., 78-5264-NO (Cir. Ct. Gartiot Cty., Mich., 1978). EPA is seeking to force Velsicol to expend several million dollars to clean up the site. Contact Jack Bails, Chief, Enforcement Div., Mich. Dept. of Natural Res.	80 CEQ at 215-216.
N.J.	Legler, a community in the Pine Barrens, Jackson Township	benzene, chloroform, trichloroethylene, trichloroethane, tetrachloroethane, dichloroethylene leaching into Cohansey acquifer. 1978.	SCM Corp. industrial wastes deposited in Jackson Township dumpsites, despite illegality of using site for toxic wastes	acute med: skin ailments Latent med: possible kidney, nervous system, blood, bone marrow, respiratory and digestive tract damage, CA, MU, TER. Complaints: residents complain of kidney ailments, cancer, miscarriages, sores and skin rashes.	96 families are suing the Township and SCM. They have requested that a $50,000,000 bond be posted to cover clean-up and for health and other damages.	80 CEQ at 214-215. See Adelund v. Township of Jackson. C.A. No. 79-2613. (D. N.J. 1979) and Battaglia v. SCM Corp. C.A. No. 80-2940, (D. N.J. 1980).

State	Location	Type and date	Source	Types of Injuries	Compensation	Reference
N.J.	Legler, contd.			nat. res: pollution of Cohancy acquifer res. related: all residents advised not to use their wells. Property value decrease. income: The Township has borrowed $1,200,000 from the state for a treatment plant and 7.5 miles of piping to provide wells.		
N.Y.	Love Canal	Toxic chemicals leached into groundwater, 1978.	Industrial wastes buried by Hooker Chemical Co.	acute med: birth defects, burns. latent med: possible CA, MU, TER and fetotoxic res. related: 100 families evacuated from homes; property values nil. nat. res: groundwater contaminated wastes entering Niagara river. income: lost by people out of work due to health effects.	About $15 billion is sought. So far, the State has paid residents for the loss of their homes.	SIX CASES at p. 8.

State	Location	Type and Date	Source	Types of Injuries	Compensation	Reference
MASS.	Lowell	flammable solvents chlorinated hydrocarbons, plating and etching wastes, solvent distillation residue sludges discovered 1978 in rotting drums on waste dump only 1/4 mile from inhabited homes. Local pollution of soil, air and water.	Dumpsite operated and abandoned by the now bankrupt Silresim Company.	Latent med: possible CA, MU, TER. Nat. res.: air, soil and water contaminated income: Mass. forced to appropriate $1,500,000 for clean-up.		79 CEQ at 179. See William R. Adams, EPA Regional Administrator, to Gary Dietrich, Associate Deputy Administrator, Memorandum: "Information Needed on Disposal Sites Where Hazardous Wastes Threaten Public Health," 10-25-78.
MICH.	Montague	Mirex (a pesticide chloroform, carbon tetrachloride, other chlorinated hydrocarbons deposited in drums. Leakage polluting surface and ground waters in a plume 2,000 feet wide and 1 mile long, extending to White Lake, a major recreational finger lake of Lake Mich. 1978	Hooker Chemical Co. dump site	Latent med.: CA, MU, TER. Nat. Res.: surface and groundwaters polluted. income: possible decrease in recreational use of White Lake	Settled for $15,000,000 clean-up operation and $1,000,000 fire. Performance land posted	79 CEQ at 179. See Mc Guire, EPA Regional Administrator, to Jorling, Asst. Administrator, memorandum, "Information on Hazardous Waste Disposal," 11-7-78.

State	Location	Type and Date	Source	Types of Injuries	Compensation	Reference
MAINE	Gray	Trichloroethane found in groundwater acquifer. 1977	Storage and operations of McKin Co., an oil tank cleaning firm.	Latent Med: CA, MU. Nat. res: 16 wells closed 750 families forced to use trucked water. income: town had to spend $600,000 to extend municipal water system to affected families.		79 CEQ at 179. See 8 Environ. Reporter 1517 (1978).
ALA., GA.	Lake Weiss, Coosa River	PCB's in water 1976	General Electric plant in Rome, Ga.	Latent med: possible CA, MU, TER effects from eating fish contaminated by PCB's. Income: waters closed to fishing, damaging commercial fishers, bait and tackle shops, Fish and Game Commission. nat. res.: pollution of lake, fishery and river.	Plaintiffs sought $1,600,000,000 Private plaintiffs settled for undisclosed amount, while Alabama settled its $100,000,000 suit for $67,500.	SIX CASE STUDIES at p. 8.

State	Location	Type and Date	Source	Types of Injuries	Compensation	Reference
N.J.	Dover Township	toxic chemicals leached into groundwater. 1974	waste disposed by Union Carbide	latent med.: possible CA, MU, TER. res. related 148 private wells contaminated, property values decreased, five tenants evicted nat. res: acquifer contaminated	Settled for approximately $200,000	SIX CASE STUDIES at p. 8.
MINN.	Perham	arsenic in drinking water. 1973	arsenic buried on agricultural lands in the early 1940's.	Hospitalization required for several people		73 CEQ at 201.
CAL.	San Francisco	alkyl lead in ponds	alkyl lead manufacturers had dumped 50 tons of organic lead in ponds at a dumpsite	in attempts to clean up the waste, plant employees became intoxicated with alkyl lead and employees in the surrounding area were exposed to airborne alkyl lead vapor		73 CEQ at 201

State	Location	Type and Date	Source	Types of Injuries	Compensation	Reference
ALA.	Pickwick Res. and impounded tributaries near Mobile	Mercury in water. 1970	Dumping by Olin and Ciba Geigy	latent med: possible TER from eating fish poisoned by mercury. income: waters closed to fishing nat. res.: pollution of water and major fishery	About $157 million were sought for damage. The case was settled for an undisclosed amount.	SIX CASE STUDIES at 7.
MICH.	Lake Erie	Mercury in water. 1969.	Discharges by several companies	latent med: possible TER from eating poisoned fish Nat. res. pollution of lake and fishery. income: damage to commercial and sport fishing, tourist industry	About $60 million in damages was sought. $120,000 was recovered	SIX CASE STUDIES at 7.

II. PESTICIDES

State	Location	Type of pollution and date discovered	Source of Pollution	Types of Injuries	Compensation Sought/ Obtained	Reference
CAL.	Lathrop	DBCP, alpha-BHC, Lindane et al., and radioactivity in groundwater. 1979	Occidental Chemical Co. plant waste disposal	Acute med: none reported, unless worker sterility also due to groundwater pollution. Latent med: possible CA, MU, TER from pesticides and radioactivity in groundwater nat. res: groundwater polluted res. related: at least three domestic wells closed; other wells under study. Possible property value decrease	$30,000,000 in civil penalties; and $15,000,000 for clean-up has been sought. No money has yet been obtained	SIX CASE STUDIES at 7.
TEXAS	Bayport	Leptophos, a pesticide produced solely for export and thus not subject to FIFRA regulation, 1977.	manufacturing exposure at pesticide plant owned by Velsicol Chemical Co.	workers complain of blurred vision and other neurological disorders	OSHA is seeking civil penalties against Velsicol	77 CEQ at 3. See Marshall v. Velsicol Chem. Co. OSHRC Docket No. 77-370. 1st. Sess. (1977).

State	Location	Type & Date	Source	Types of Injuries	Compensation	Reference
TENN.	Toone	endrin, dieldrin, aldrin, heptachlor pollution in family wells, 1975	Velsicol Chem. had used a neighboring 300-acre site for shallow burial of 300,000 55-gallon drums of pesticide production residues	acute med. 1 death, liver and urinary tract ailments, dizziness, nausea, rashes Latent med: possible CA, TER, Res. related: wells, clothing and household utensils contaminated. Property values diminished. nat. res. acquifer contaminated. Income: loss of income due to sickness	$2,500,000,000 in damages sought. No recovery so far.	79 CEQ at 179 SIX CASE STUDIES at 8.
VA.	James River	Kepone in river. 1975	Life Sciences Corp. dumped pesticide in river	acute med. 70 plant employees and their families suffer from kepone poisoning. Latent med: possible CA, TER. Income: losses suffered by workers and fishing industry Nat. res. important fin and shell fishery contaminated.	Plaintiffs sought several billion dollars in damages So far, $20 million has been recovered. Some suits are still pending.	SIX CASE STUDIES at 8.

III. ACCIDENTS

State	Location	Type of Pollution and date discovered	Source of Pollution	Types of injuries	Compensation Sought/ Obtained	Reference
ARK.	Sullee Landfill near Gassville	Dumpsite ignited in November 1979, releasing a cloud of toxic hydrogen chloride. Dangerous levels, as high as 15 ppm, were detected as far as two miles away.	6,000 lbs. of plastic and other wastes located at dumpsite. Owner had been repeatedly warned his dumpsite had violated state regulations because wastes were not properly buried	Acute med: in high concentrations, fatal. In low concentrations, can produce irritation, burns, ulceration of the skin, eyes and mucous membranes, reduced vision and blindness, laryngitis, bronchitis, pulmonary edema.		80 CEQ at 215 For more information, contact H.J. Parr, Chief, Solid Waste Mgm. Div., Arkansas Dept. of Pollution Control & Ecology. For information concerning the health effects of exposure to HCl, see Key, et.al., eds., Occupational Diseases: A Guide to their Recognition, (Wash., D.C.: U.S. Govt. Printing Office, 1977) at pp. 322-23.

State	Location	Type of Pollution & Date	Source	Types of Injuries	Compensation	Reference
FLA.	Youngstown	Chlorine in air. 1978.	Derailed train tank car	Acute med: 8 deaths, over 100 injuries. latent med. possible chronic injury to respiratory tract. res. related: Property damage pollution of well water. nat. res.: contaminated groundwater. income: injured parties unable to work for extended period.	About $750,000,000 is being sought. No award has been made so far.	SIX CASE STUDIES at p. 7.
MICH.		PBB's intended for use as flame retardant were accidentally mixed with animal feed in 1973. After three years of eating meat, milk and eggs, hundreds of Michigan residents exhibited persistent illness. 1976.		acute med. Hundreds of residents exhibited swollen joints, abdominal pain, memory loss, muscular weakness, coordination, difficulties, headaches, fatigue, and sleep disorders. latent med: possible CA, MU, TER. res. related: 500 farms quarantined income: 30,000 cattle and many other farm animals destroyed.		77 CEQ at 3. See statement of Anderson, Hearings on Toxic Substances Before the Subcommittee on Science, Technology, and Space of the Senate Committee on Science, Technology and Transportation, 95th Cong., 1st Sess. (1977).

State	Location	Type and date	Source	Types of Injuries	Compensation	Reference
W. VA.	South Charleston	Carbon tetrachloride spilled 23 times in two years into the Kawanah River, for a total of 12,000 lbs. 1976	FMC Corp. plant	latent med: possible CA, MU, TER effects. nat. res.: pollution of Kawanah River, drinking water contaminated as far downstream as Evansville, Indiana. Some downstream users must boil water before use.	EPA obtained a court order to halt production of CCl_4. Evansville, Ind. and Cincinnati, Ohio have filed criminal suits for damage to city water supplies	77 CEQ at 19. See U.S. v. F.M.C. Corp., No. 77-3061 (S.D. W. Va., 3-15-77)

IV. TOXIC AIR POLLUTION

State	Location	Type of Pollution & date discovered	Source of Pollution	Types of Injuries	Compensation Sought/obtained	Reference
MO.	Moscow Mills	Dioxin tainted oil sprayed in horse arena. 1971.	Oil used as dust suppressant	acute med: diarrhea, dysuria hematuria, hemorrhagic cystitis. Latent Med: dioxin has CA, MU, TER and feto-toxic effects income: injury or death of 68 horses, destruction of equipment, loss of stables and arena.	About $2.5 million was sought. $225,000 was recovered and one suit is still pending.	SIX CASE STUDIES at 8.
TEXAS	El Pase	lead in air, 1971.	lead smelter operated by ASARCO	Acute med: lead toxicity in 148 children, 15 requiring hospitalization; one death alleged. latent med: mental and neurological defects alleged. res. related: residents evicted or relocated. nat. res.: air pollution.	About $19 million was sought. So far, $580,000 in settlements has been paid. Two suits are still pending.	SIX CASE STUDIES at 8.

State	Location	Type and Date	Source	Types of Injuries	Compensation	Reference
LA.	Darrow	Hexachloro-benzne (HCB) contamination of soil, vegetation and cattle. 1972	Volatization of HCB from area landfills and air emissions from Vulcan materials Corp. and other local plants	Disproportionately high plasme levels of HCB in area residents	—	Damages and Threats caused by Hazardous Materials Sites, EPA 1980.

APPENDIX J 80 CEQ at 109-111

Toxic Substances in Rivers and Streams Awareness of water quality degradation caused by toxic substances is growing. Several rivers have been seriously affected by toxic pollutants—the James, the Hudson, the Shenandoah, the Susquehanna, the Delaware, the Housatonic, the Coosa, the Shiawassee, the Mobile, the Tombigbee, and the Holston Rivers.[96] Pesticides, hydrocarbon products, solvents, acid residues, and heavy metals are among the pollutants.

The 1978 State Water Quality Reports to the Congress, submitted under the Clean Water Act, revealed that 35 of the 37 states reporting had a problem with pollution by toxic substances. But the lack of monitoring data for most toxic substances makes it impossible to estimate how widespread the problems are or to say whether conditions are improving or deteriorating.

According to the states, the most widely reported toxic substances problem is contamination by heavy metals. They have been reported in rivers and streams throughout the nation. In California, for example, mercury concentrations exceeding EPA guidelines were detected in fish from five rivers in 1978.[97]

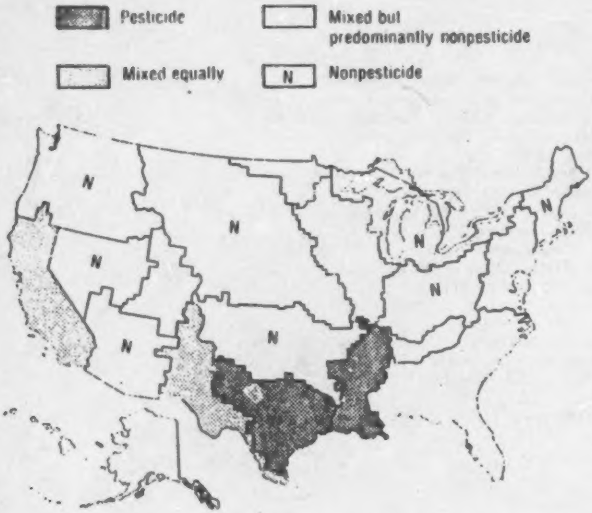
Pollution of rivers and streams by pesticides is a serious problem. Of the states reporting, more than one-half (19) reported pesticide pollution. As Figure 3–8 shows, toxic water pollution problems of the south central states are largely caused by pesticides. But there is some evidence of improvements following restrictions on pesticide use. In Arkansas, for example, concentrations of DDT in rivers and streams have gradually decreased.[98]

Pollution from cyanides, phenols, polychlorinated biphenyls (PCBs), and other industrial chemicals was also reported by more than one-half (19) the states reporting. The problems may be considerably more widespread than these figures indicate because widescale monitoring for many organic toxic pollutants has only recently begun. Phenolic compounds were identified as water pollution problems in 11 states, 12 chemical production areas, and the upper Ohio River Basin.[99] Polychlorinated biphenyls (PCBs) were reported as problems in eight states; as a result, fishing was restricted in parts of the Hudson and Housatonic Rivers, and fish consumption bans or warnings were issued in Connecticut, New York, Michigan, and other states.[100]

Two widely publicized cases of toxic substances contamination of rivers were the discoveries of Kepone in the James River in Virginia and PCBs in the Hudson River in New York. From 1975 to 1980, the Kepone contamination of the James has resulted in sport and commercial fishing losses estimated at about $20 million,[101] and the PCB contamination of the Hudson has caused sport and commercial fishing losses estimated in the millions of dollars annually from 1976 to 1980.[102] In both instances, as in numerous others, the accumulation of chemicals in river-bottom sediments and the nondegradability of the substances suggest that the contamination may well remain for years.[103]

Figure 3-8

Pesticide- and Nonpesticide-Related Water Pollution, 1978


Pesticide
Mixed but predominantly nonpesticide
Mixed equally
N
Nonpesticide
N
N
N
N
N
N
N
N

Source: U.S. Environmental Protection Agency, Office of Water Regulations and Standards.

APPENDIX J ---Footnotes

96. U.S. Library of Congress, Congressional Research Service, *Resource Losses from Surface Water, Groundwater, and Atmospheric Contamination: A Catalog*, prepared for the Senate Committee on Environment and Public Works, 96th Cong., 2d Sess., Serial No. 96–9 (Washington, D.C. U.S. Government Printing Office, 1980), p. x.
97. California Water Resources Control Board, *Water Quality Inventory for Water Years 1978 and 1979* (Sacramento, 1980), pp. 23–25.
98. Arkansas Department of Pollution Control and Ecology, *Arkansas Water Quality Inventory Report, 1977* (Little Rock, 1977), p. 66.
99. U.S. Environmental Protection Agency, *supra* note 91, at 8.
100. Information provided by Thomas M. Murray, Office of Water Regulations and Standards, U.S. Environmental Protection Agency.
101. Information provided by Roy N. Puckett, Office of the Secretary of Commerce and Resources, Commonwealth of Virginia.
102. L. Hetting, E. Horn, and J. Tofflemire, *Summary of Hudson River PCB Study Results* (Albany: New York State Department of Environmental Conservation, 1978), pp. 79–81; U.S. Library of Congress, *supra* note 96, at 52.
103. Susan West, "Acid from Heaven," *Science News* 117:76 (1980).

APPENDIX I   80 CEQ at 202-204

Occupational Exposures in Trades Employing Large Numbers of Women

Occupation	Exposure
Textile and related occupations	
Textile workers	Raw cotton dust, noise, synthetic fiber dusts, formaldehyde, heat, dyes, flame retardants, asbestos
Sewers and stitchers, upholsterers	Cotton and synthetic fiber dusts, noise, formaldehyde, organic solvents, benzene, toluene, trichloroethylene, perchloroethylene, chloroprene, styrene, carbon disulfide, flame retardants, asbestos
Hospital and health personnel	
Registered nurses, aides, orderlies	Anesthetic gases, ethylene oxide, X-ray radiation, alcohol, infectious diseases, puncture wounds
Dental hygienists	X-ray radiation, mercury, ultrasonic noise, anesthetic gases
Laboratory workers (clinical and research)	Wide variety of toxic chemicals, including carcinogens, mutagens, and teratogens, X-ray radiation
Electronics assemblers	Lead, tin, antimony, trichloroethylene, methylene chloride, epoxy resins, methyl ethyl ketone
Hairdressers and cosmetologists	Hair spray resins (polyvinyl pyrrolidone), aerosol propellants (freons), halogenated hydrocarbons, hair dyes, solvents of nail polish, benzyl alcohol, ethyl alcohol, acetone
Cleaning personnel	
Launderers	Soaps, detergents, enzymes, heat, humidity, industrially contaminated clothing
Dry cleaners	Perchloroethylene, trichloroethylene, stoddard solvent (naphtha), benzene, industrially contaminated clothing
Photographic processors	Caustics, iron salts, mercuric chloride, bromides, iodides, pyrogallic acid, silver nitrate
Plastic fabricators	Acrylonitrile, phenol formaldehydes, urea formaldehydes, hexamethylenetetramine, acids, alkalies, peroxide, vinyl chloride, polystyrene, vinylidene chloride
Domestics	Solvents, hydrocarbons, soaps, detergents, bleaches, alkalies
Transportation personnel	Carbon monoxide, polynuclear aromatics, lead, and other combustion products of gasoline, vibration, physical stress
Sign painters and letterers	Lead oxide, lead chromate pigments, epichlorohydrin, titanium dioxide, trace metals, xylene, toluene
Clerical personnel	Physical stress, poor illumination, trichloroethylene, carbon tetrachloride and various other cleaners, asbestos in air conditioning
Opticians and lens grinders	Coal tar pitch volatiles, iron oxide, dust solvents, hydrocarbons
Printing personnel	Ink mists, 2-nitropropane, methanol, carbon tetrachloride, methylene chloride, lead, noise, hydrocarbon solvents, trichloroethylene, toluene, benzene, trace metals

Source: U.S. Department of Health, Education, and Welfare, National Institute for Occupational Safety and Health, *Guidelines on Pregnancy and Work* (Washington, D.C.: U.S. Government Printing Office, 1977), pp. 65–66.

80 CEQ at 202-204

Effects of Environmental Chemicals and Drugs on Male Reproduction, from Human Studies

Agent	Type of study	Effect
Environmental chemical		
Anesthetic gases	Reproductive history	Increased incidence of congenital anomalies in offspring
Carbon disulfide	Semen analysis, reproductive history	Impotence, loss of libido
Chloroprene	Semen analysis, reproductive history	Decreased motility and sperm count, excess miscarriages in wives
Cigarette smoke	Semen analysis	Increase in abnormally shaped sperm
Dibromochloropropane	Semen analysis, reproductive history	Decreased sperm count, infertility
Hydrocarbons	Reproductive history	Increased incidence of childhood cancer with occupational hydrocarbon exposure of father
Kepone	Reproductive history	Decreased fertility in males
Lead	Semen analysis	Decreased motility and sperm count, increase in abnormally shaped sperm
Vinyl chloride	Reproductive questionnaire	Adverse pregnancy outcome in wives; excess fetal loss
Drug		
Alcohol	Autopsy	Testicular atrophy, azoospermia, testicular pathology
Amebicide	Clinical	Inhibited sperm motility, abnormal morphology, immature cells in ejaculate
Anticonvulsants	Survey of children of epileptics	Increased level of developmental disabilities
Antineoplastic agents	Clinical, epidemiologic	Reduced fertility
Clomiphene	Semen analysis	Decreased sperm count
Diamines	Testicular biopsy	Decreased spermatids, abnormal morphology of spermatids, azoospermia
Diethylstilbestrol	Clinical	Epididymal cysts, hypotrophic testes, capsular induration of testes, sperm abnormalities
Iodine	Clinical	Atrophy of testes
Oral contraceptives	Reproductive history, physical exam, blood analysis	Gynecomastia, decreased libido, infertility
Testosterone enanthate	Clinical	Sterility

Source: V. R. Hunt, *Work and the Health of Women* (Boca Raton, Fla.: CRC Press, Inc., 1979), pp. 158, 164, reprinted with permission (copyright © The Chemical Rubber Co., CRC Press, Inc.).

APPENDIX J 80 CEQ at 217

Table 5–5

Total U.S. Industrial Hazardous Wastes

Source	Percentage of total
Chemical and allied products	60
Machinery (except electrical)	10
Primary metals	8
Paper and allied products	6
Fabricated metal products	4
Stone, clay, and glass products	3
All others	9

Source: U.S. Environmental Protection Agency, Office of Water and Waste Management, *Everybody's Problem: Hazardous Waste* (Washington, D.C.: U.S. Government Printing Office, 1980), p. 14.

APPENDIX J 80 CEQ at 217

Table 5–6

Common Hazardous Wastes

Chemical	Use	Manufacturing hazard
C–56	Bug and insect killer	Acutely toxic, suspected carcinogen
Trichloroethylene (TCE)	Degreaser	Suspected carcinogen
Benzidene	Dye industry	Known human carcinogen
Curene 442	Plastics industry	Suspected carcinogen
Polychlorinated biphenyls (PCBs)	Insulators, paints, and electrical circuitry	Acutely toxic, suspected carcinogen
Benzene	Solvent	Suspected carcinogen
Tris	Fire retardant	Suspected carcinogen
DDT	Bug and insect killer	Acutely toxic
Vinyl chloride	Plastics industry	Known human carcinogen
Mercury	Multiple uses	Acutely toxic
Lead	Multiple uses	Acutely toxic, suspected carcinogen
Carbon tetrachloride	Solvent	Acutely toxic, suspected carcinogen
Polybrominated biphenyls (PBBs)	Fire retardant	Effects unknown

Source: Eric Sharp and Doug Hall, "Haulers Fouling State with Deadly Chemicals," *Detroit Free Press*, December 12, 1979, p. 19A (copyright ©, reprinted with permission).

P5- 79 CEQ at 192-93.

Agent	Occupation	Site of Cancer
Organic Agents		
Aromatic hydrocarbons		
Coal soot, coal tar, other products of coal combustion	Manufacturers of coal gas; asphalt, coal tar, and pitch workers; coke-oven workers; miners (uranium, fluorspar, hematite); still cleaners; chimney sweeps	Lung, larynx, skin, scrotum, bladder
Petroleum, petroleum coke, wax, creosote, anthracene, paraffin, shale, mineral oils	Lubricating, cooling, or fuel oil workers; coke, paraffin, wax, rubber and retort workers; textile weavers; diesel jet testers	Nasal cavity, lung, larynx, skin, scrotum
Benzene	Workers with chemicals, glues, varnishes, explosives, rubber cement; distillers, dye workers, painters, and shoe workers	Bone marrow, leukemia
Auramine, benzidine, 1-naphthylamine, 2-naphthylamine, magenta, 4-aminobiphenyl, 4-nitrobiphenyl	Manufacture and use of dyestuffs; rubber workers, textile dyers, paint manufacturers	Bladder
Others		
Mustard gas	Poison gas makers	Larynx, lung, trachea, bronchi
Isopropyl oil	Isopropylene manufacturers	Nasal sinuses
Vinyl chloride	PVC manufacturers, plastics workers	Liver (angiosarcoma), brain
Bis(chloromethyl) ether, chloromethyl methyl ether	Makers of ion-exchange resins, chemical workers	Lung
Inorganic Agents		
Metals		
Arsenic compounds	Gold miners, smelter workers; some vineyard workers; sheep dip manufacturers, tanners; insecticide makers and sprayers, chemical workers	Skin, lung, liver
Cadmium	Cadmium-using industries	Prostate, [illegible]
Chromium	Chromate producers, processors, and users; acetylene and aniline workers; bleachers; glass, pottery, and linoleum workers; battery makers	Nasal cavity and sinuses, lung, larynx
Iron oxide	Hematite miners, metal grinders and polishers, silver finishers, iron foundry workers	Lung, larynx
Nickel	Nickel refiners, electrolysis workers	Nasal sinuses, lung
Physical Agents		
Ionizing radiation		
X-rays	Radiologists, medical personnel	Skin, bone marrow (leukemia)
Uranium, radon, radium mesothorium	Radiologists, radiographers, miners of uranium, fluorspar, and hematite; radium dial painters; radium chemists	Skin, bone, lung, bone marrow (leukemia)
Non-ionizing radiation		
Ultraviolet rays	Farmers, sailors	Skin
Fibers		
Asbestos	Miners, millers, textile insulation, and shipyard workers	Lung, pleural and peritoneal mesothelioma
Dusts		
Wood	Wood workers	Nasal cavity and sinuses
Leather	Leather and shoe workers	Nasal cavity and sinuses, bladder
Others		
Hypoxia	Caisson workers	Bone

Source: Adapted from R. Doll, "Introduction," in H. H. Hiatt, *et al.*, eds. *Origins of Human Cancer*, Cold Spring Harbor Conferences on Cell Proliferation, Vol. 4 (Cold Spring Harbor, NY: Cold Spring Harbor Laboratory, 1977), p. 3, Table 4; L. Tomatis, *et al.*, "Evaluation of the Carcinogenicity of Chemicals: A Review of the Monograph Program of the International Agency for Research on Cancer (1971 to 1977)," *Cancer Research*, 38: 877-885 (1978), pp. 879, 880, Table 2; P. Cole and M. B. Goldman, "Occupation," in J. F. Fraumeni, Jr., ed. *Persons at High Risk of Cancer* (New York, Academic Press, 1975), pp. 172-176, Table 1.

Table 3–6

Chemicals or Industrial Processes Associated With Cancer Induction in Humans

Chemical or Industrial Process	Main Type of Exposure [a]	Target Organs in Humans	Main Source of Exposure [b]
Aflatoxins	Environmental, occupational [c]	Liver	Oral, inhalation [c]
4-Aminobiphenyl	Occupational	Bladder	Inhalation, skin, oral
Arsenic compounds	Occupational, medicinal, environmental	Skin, lung, liver [c]	Inhalation, skin, oral
Asbestos	Occupational	Lung, pleural cavity, G.I. tract	Inhalation, oral
Auramine manufacturing	Occupational	Bladder	Inhalation, skin, oral
Benzene	Occupational	Hemopoietic system	Inhalation, skin
Benzidine	Occupational	Bladder	Inhalation, skin, oral
Bis (chloromethyl)-ether	Occupational	Lung	Inhalation
Cadmium-using industries (possibly cadmium oxides)	Occupational	Prostate, lung	Inhalation, oral
Chloramphenicol	Medicinal	Hemopoietic system	Oral, injection
Chloromethyl ether (possibly associated with bis(chloromethyl) ether	Occupational	Lung	Inhalation
Chromate-producing industries	Occupational	Lung, nasal cavities [c]	Inhalation
Cyclophosphamide	Medicinal	Bladder	Oral, injection
Diethylstilbestrol (DES)	Medicinal	Uterus, vagina	Oral
Hematite mining	Occupational	Lung	Inhalation
Isopropyl oil	Occupational	Nasal cavity, larynx	Inhalation
Melphalan	Medicinal	Hemopoietic system	Oral, injection
Mustard gas	Occupational	Lung, larynx	Inhalation
2-Naphthylamine	Occupational	Bladder	Inhalation, skin, oral
Nickel refining	Occupational	Nasal cavity, lung	Inhalation
N,N-bis (2-chloroethyl)-2-naphthylamine (chlornaphazine)	Medicinal	Bladder	Oral
Oxymetholone	Medicinal	Liver	Oral
Phenacetin	Medicinal	Kidney	Oral
Phenytoin	Medicinal	Lymphoreticular tissues	Oral, injection
Soot, tars, and oils	Occupational, environmental	Lung, skin, scrotum	Inhalation, skin
Vinyl chloride	Occupational	Liver, brain,[c] lung [c]	Inhalation, skin

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[a] The main types of exposure mentioned are those by which the association has been demonstrated.

[b] The main routes of exposure given may not be the only ones by which such effects could occur.

[c] Denotes indicative evidence.

Source: Adapted from L. Tomatis, *et al.*, "Evaluation of the Carcinogenicity of Chemicals: A Review of the Monograph Program of the International Agency for Research on Cancer, (1971–1977)," *Cancer Research* 38: 877–885 (1978), pp. 879–889, Table 2.

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Table 2-14

The 129 Priority Toxic Pollutants

Pollutant	Characteristics	Sources	Remarks
Pesticides Generally chlorinated hydrocarbons	Readily assimilated by aquatic animals, fat soluble, concentrated through the food chain (biomagnified), persistent in soil and sediments	Direct application to farm- and forestlands, runoff from lawns and gardens, urban runoff, discharge in industrial wastewater	Several chlorinated hydrocarbon pesticides already restricted by EPA: aldrin, dieldrin, DDT, DDD, endrin, heptachlor, lindane, and chlordane
Polychlorinated biphenyls (PCBs) Used in electrical capacitors and transformers, paints, plastics, insecticides, other industrial products	Readily assimilated by aquatic animals, fat soluble, subject to biomagnification, persistent, chemically similar to the chlorinated hydrocarbons	Municipal and industrial waste discharges disposed of in dumps and landfills	TSCA ban on production after 6/1/79 but will persist in sediments; restrictions on many freshwater fisheries as a result of PCB pollution (e.g., lower Hudson, upper Housatonic, parts of Lake Michigan)
Metals Antimony, arsenic, beryllium, cadmium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc **Other inorganics** Asbestos and cyanide	Not biodegradable, persistent in sediments, toxic in solution, subject to biomagnification **Asbestos** May cause cancer when inhaled, aquatic toxicity not well understood **Cyanide** Variably persistent, inhibits oxygen metabolism	Industrial discharges, mining activity, urban runoff, erosion of metal-rich soil, certain agricultural uses (e.g., mercury as a fungicide) **Asbestos** Manufacture and use as a retardant, roofing material, brake lining, etc.; runoff from mining **Cyanide** Wide variety of industrial uses	
Halogenated aliphatics Used in fire extinguishers, refrigerants, propellants, pesticides, solvents for oils, and greases and in dry cleaning	Largest single class of "priority toxics," can cause damage to central nervous system and liver, not very persistent	Produced by chlorination of water, vaporization during use	Large volume industrial chemicals, widely dispersed, but less threat to the environment than persistent chemicals
Ethers Used mainly as solvents for polymer plastics	Potent carcinogen, aquatic toxicity and fate not well understood	Escape during production and use	Though some are volatile, others have been identified in some natural waters.
Phthalate esters Used chiefly in production of polyvinyl chloride and thermoplastics as plasticizers	Common aquatic pollutant, moderately toxic but teratogenic and mutagenic properties in low concentrations; aquatic invertebrates are particularly sensitive to toxic effects; persistent; and can be biomagnified	Waste disposal vaporization during use (in nonplastics)	
Monocyclic aromatics (excluding phenols, cresols and phthalates) Used in the manufacture of other chemicals, explosives, dyes and pigments, and in solvents, fungicides, and herbicides	Central nervous system depressant; can damage liver and kidneys	Enter environment during production and byproduct production states by direct volatilization, wastewater	
Phenols Large volume industrial compounds used chiefly as chemical intermediates in the production of synthetic polymers, dyestuffs, pigments, pesticides, and herbicides	Toxicity increases with degree of chlorination of the phenolic molecule; very low concentrations can taint fish flesh and impart objectionable odor and taste to drinking water; difficult to remove from water by conventional treatment; carcinogenic in mice	Occur naturally in fossil fuels, waste water from coking ovens, oil refineries, tar distillation plants, herbicide manufacturing, and plastic manufacturing; can all contain phenolic compounds	
Polycyclic aromatic hydrocarbons Used as dyestuffs, chemical intermediates, pesticides, herbicides, motor fuels, and oils	Carcinogenic in animals and indirectly linked to cancer in humans; most work done on air pollution; more is needed on the aquatic toxicity of these compounds; not persistent and are biodegradable though bioaccumulation can occur	Fossil fuels (use, spills, and production), incomplete combustion of hydrocarbons	
Nitrosamines Used in the production of organic chemicals and rubber; patents exist on processes using these compounds	Tests on laboratory animals have shown the nitrosamines to be some of the most potent carcinogens	Production and use can occur spontaneously in food cooking operations	

A recent EPA study of surface waters, generally near industrial areas, showed that human activity has introduced toxic pollutants at significant levels in the waters.[78] Concentrations of inorganic pollutants, such as heavy metals, were well above what would be expected from natural background sources. Many synthetic organic pollutants were also found in the study. The investigators collected 204 water samples and analyzed a number of pollutants, including the 129 priority toxic pollutants. The kinds of organic analyses used on these samples were not designed to detect PCBs or the chlorinated hydrocarbon pesticides.

Sample sites were not selected because they are representative of the nation's water quality; rather, they are areas where water quality problems from toxic pollutants might reasonably be expected. Of the 204 sites, 181 were surface water quality stations, and the remainder were at drinking water treatment plants and at sewage treatment plants. The analyses did not include sediments.

Samples were collected from 12 of the 15 major drainage basins in the 48 contiguous states (Figure 2–18). With the focus on industrial areas, the Missouri River basin, the Colorado River basin, and the Great Basin (Nevada, western Utah and southeastern California) were not sampled. Because the number of samples taken varied from basin to basin, it is not possible to make direct comparisons, but it is possible to make some general observations.

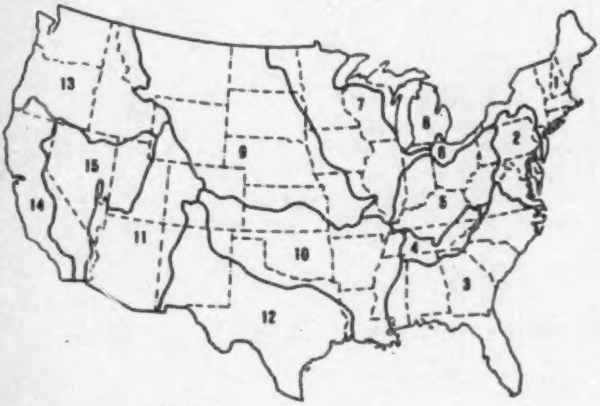
All the inorganic toxic substances were found in the 12 major drainage basins sampled. Although these elements occur naturally, many are at higher levels because of human activity. In two-thirds (eight) of the basins sampled, six or more inorganic toxics exceeded proposed ambient water quality criteria in at least one sample. Cadmium, chromium, mercury, and selenium were in violation of proposed criteria in at least 10 percent of the samples taken (see Table 2–15 and Figure 2–19).

Mercury is a serious problem in all 12 major drainage basins sampled: concentrations exceeded ambient water quality criteria at more than three-fourths of the stations. The median values range from 0.4 to 2.1 micrograms per liter, which is significantly above the EPA aquatic life protection criterion of 0.05 micrograms per liter. The North Atlantic and Western Gulf basins had particularly high median values for mercury, 2.1 micrograms per liter.

Chromium is another inorganic pollutant found in concentrations

Figure 2-18

Basins Sampled for Toxic Substances in EPA Survey



Region		Number of sites sampled	Region		Number of sites sampled
1	Northeast	33	9	Missouri River	0
2	North Atlantic	27	10	Southwest - Lower Mississippi	11
3	Southeast	7	11	Colorado River	0
4	Tennessee River	7	12	Western Gulf	8
5	Ohio River	20	13	Pacific Northwest	5
6	Lake Erie	7	14	California	0
7	Upper Mississippi	28	15	Great Basin	0
8	Western Great Lakes	0			

Table 2-15

Inorganic Toxic Pollutants by Basin[1]

(micrograms per liter)

Major basin	Number of sites	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Zinc
1	33	D D-600	11 D-60	D D-41	D D-69	1.1 D-27	4 D-104	D D-196	30 11-656
2	27	D D-23	D D-66	D D-29	23 D-92	2.1 D-31	D D-18	D D-18	50 11-213
3	7	D D-415	8.2 D-20	D D-20	D D-20	1 0.7-4	5 D-20	0.6 D-1.3	24 D-57
4	7	D D-55	9 2-32	20 D-100	30 D-90	1.5 0.3-16	9 D-16	1 D-5.3	25 D-225
5	20	D D-55	5.6 D-95	D D-95	D D-90	.8 0.2-2	0.9 D-30	0.6 D-1.8	26 D-120
6	7	D D-9	26 16-80	D D-30	D D-50	0.8 D-50	20 D-65	0.5 D-7.4	35 13-355
7	38	D D-80	14 D-62	D D-60	D D-80	1.3 D-4.5	D D-125	0.6 D-7	28 D-245
8	9	D D-20	40 4.8-63	D D-60	D D-55	0.4 D-1.1	10 D-27	0.5 D-7.7	35 D-80
10	11	D D-30	49 D-80	D D-30	D D-30	0.9 D-12	D D-14	1.5 D-5.8	49 D-105
12	8	D D-750	35 3-62	D D-25	27 D-40	2.1 0.7-60	14 D-23	1.5 D-30	47 D-163
13	5	D D-7	7.2 D-20	D D-70	D D-30	D 0.3-40	D D-9	D D-4	11 D-21
14	9	D D-610	38 5-95	33 D-75	D D-63	1.9 D-50	D D-30	D D-15	11 D-130

D = Detected but not quantifiable

[1] Concentrations shown are for whole water samples (water plus suspended sediment).

The upper figure for each pollutant is the median, the lower figure the range.

Source: U.S. Environmental Protection Agency, Office of Water and Waste Management.

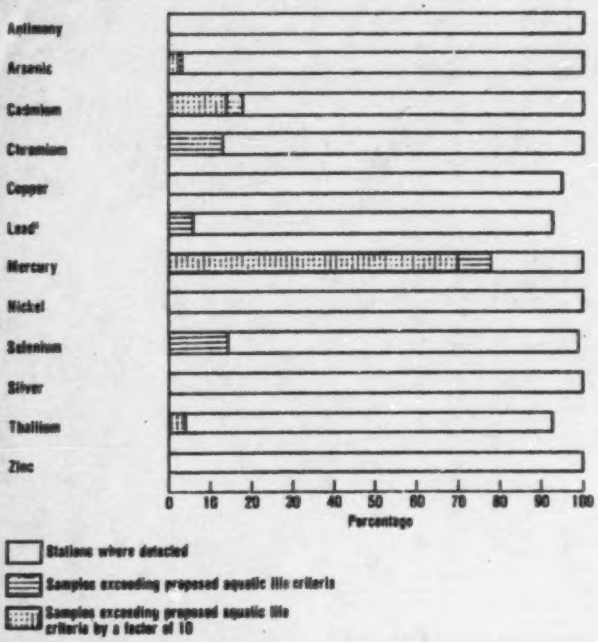
exceeding the proposed water quality criteria for aquatic life (30 micrograms per liter) in almost all the basins sampled. Especially high concentrations were found in the Western Great Lakes, Southwest-Lower Mississippi, Western Gulf, and California drainage basins. There the median values exceeded proposed criteria.

Cadmium concentrations exceeded the proposed criterion of 0.2 micrograms per liter at 18 percent of the stations sampled. Samples exceeding the criterion were particularly prevalent at stations in the Southeast, Western Gulf, and California basins.

Selenium was found in excess of its 4 micrograms per liter proposed aquatic life protection criterion at 14 percent of the stations. The average median value was 0.6 micrograms per liter. Levels were

Figure 2-19

Inorganic Toxic Pollutants Detected in EPA Survey



¹Samples exceeding drinking water criteria.
Source: U.S. Environmental Protection Agency, Office of Water and Waste Management.

particularly high in the Northeast, North Atlantic, Southeast, Southwest, and Western Gulf drainage basins.

Six of the EPA priority organic toxic pollutants—chloroform; 1,1,1, trichloroethane; trichloroethene; tetrachloroethene; di-n-butyl phthalate; and bis (2-ethylhexyl) phthalate—were found at more than one-fourth of the stations sampled. Concentrations detected are given in Table 2-16. Chloroform and both phthalates were widespread; each was found at more than 75 percent of the locations sampled. Three of them (di-n-butyl phthalate, bis (2-ethylhexyl) phthalate, and 1,1,1 trichloroethane) were found in excess of proposed water quality criteria at more than 10 percent of the stations, as shown in Figure 2-20. No criterion has been proposed for chloroform.

The phthalate esters are a widespread pollution problem. In addition, an extremely low criterion of 0.3 micrograms per liter for

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Table 2-16

Organic Toxic Pollutants by Basin[1]

(micrograms per liter)

Major basin	Number of sites	Chloroform	1,1,1 trichloroethane	Trichloroethene	Tetrachloroethene	Di-n-butyl phthalate	Bis (2-ethylhexyl) phthalate
1	33	4 0–20	0 0–3	1 0–10	1 0–9	1 0–20	1 0–2,347
2	27	2 0–13	0 0–1	1 0–24	1 0–5	0 0–2	0 0–49
3	7	1 0–3	0 0–0	0 0–1	0 0–0	0 0–1	0 0–3
4	7	3 0–11	0 0–4	0 0–3	0 0–13	0 0–8	1 0–31
5	20	1 0–7	0 0–0	0 0–1	0 0–0	0 0–5	1 0–4
6	7	0 0–9	0 0–0	0 0–188	0 0–45	0 0–2	1 0–6
7	38	9 0–120	0 0–2	1 0–13	0 0–11	0 0–4	0 0–7
8	9	1 0–8	0 0–1	0 0–0	0 0–0	0 0–1	1 0–2
10	11	2 0–87	0 0–0	0 0–1	0 0–7	0 0–2	0 0–2
12	8	1 0–5	0 0–0	0.5 0–3	1 0–22	0 0–1	2 0–3
13	5	0 0–4	0 0–0	0 0–0	0 0–0	0 0–0	0 0–1
14	9	0 0–3	0 0–0	0 0–0	0 0–1	0 0–60	0 0–0

[1] Concentrations shown are for whole water samples (water plus suspended sediment).

The upper figure for each pollutant is the median, the lower figure the range.

Source: U.S. Environmental Protection Agency, Office of Water and Waste Management.

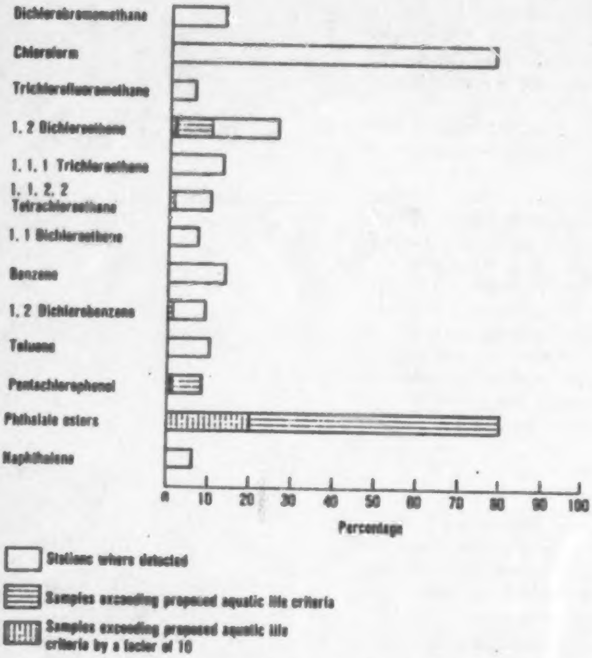
aquatic life protection has been proposed for the total amount of phthalate esters in a water sample. Samples at 78 percent of the stations sampled were in excess of this criterion.

An important intermediate product from which other organic chemicals are synthesized—1,2 dichloroethane—was found in 9 of the 12 major drainage basins sampled; 1,2 dichloroethane is a particularly serious pollutant in the Northeast and North Atlantic drainage areas, where 93 samples were in excess of the proposed water quality criterion.

The problem of trichloroethene, although widespread, is significant only in the Northeast, Lake Erie, and Upper Mississippi drainage basins, where 14–19 percent of the samples were in excess of the

Figure 2-20

Organic Toxic Pollutants Detected in EPA Survey



Source: U.S. Environmental Protection Agency, Office of Water and Waste Management.

4.6 micrograms per liter aquatic life protection criterion. These basins accounted for all but one of the excesses above the criterion.

The results tend to underestimate the magnitude of the problems from toxic pollutants. Although each toxic material in a given water body may not be present in excess of its water quality criterion, the additive effects of many toxic substances in low concentrations can put significant stress on an aquatic ecosystem. Each pollutant increases the range of factors to which biota must respond, even when the individual quantities are small. Sometimes pollutants have synergistic effects, increasing their toxicities. On the other hand, some pollutants may have antagonistic effects which could reduce the overall toxicity from the added effects.

In addition to the ambient surface water samples, 26 samples were taken at 13 water treatment plants, one-half prior to treatment and one-half after treatment. In most municipalities treatment consists of filtering chlorination. Chlorination effectively disinfects, but it can also alter organic compounds by adding chlorine to the chemical structure. This may create toxic chlorinated organic compounds from relatively harmless substances or increase the toxicity of already harmful materials.

The EPA study showed that concentrations of three compounds, chloroform, dichlorobromomethane, and chlorodibromomethane, increased markedly during treatment. In 10 of the 13 plants, chloroform levels were higher in finished drinking water. Chloroform values in the finished drinking water samples ranged from 22 to 68 micrograms per liter. The average increase for the 13 plants was 27 micrograms per liter, and in 3 plants chloroform was found only after treatment. Dichlorobromomethane was detected in 11 of the 13 drinking water samples and in only 1 of the untreated samples. Posttreatment levels ranged from 2 to 14 micrograms per liter, with an average increase of 5.9. Chlorodibromomethane was detected in 10 untreated samples; the range of values in the drinking water samples was 1–10 micrograms per liter, with an average increase of 3.9. The EPA standard for drinking water is 100 micrograms per liter for total halogenated methanes.

The National Organics Monitoring Survey

In 1976 EPA began the National Organics Monitoring Survey to determine the frequency of occurrence of specific contaminants in 113 drinking water supplies representing various sources and treatment processes. Data were to be used in establishing requirements for the control of organic compounds in drinking water.

The study demonstrated the presence of trihalomethanes (chloroform, bromoform, chlorodibromomethane, and dichlorobromomethane) in the water after treatment, as shown in Table 2–17. By far the most widespread synthetic organic contaminants in drinking water, they also occur at the highest concentrations (up to 784 micrograms per liter). They are produced by chlorination during treatment of naturally occurring precursors, which are probably in humus but may also be in algae and other chemicals.

Besides trihalomethanes, most compounds studied in the survey and generally present in drinking water are there because the raw water is contaminated. An exception is 2,4 dichlorophenol, which is generally produced by chlorination of phenol or related precursors.

Many other synthetic products were also detected; generally their concentrations were very low and the number of occurrences small. The common volatile halogenated solvents and chemical intermediates (i.e., chlorinated ethanes, ethylenes, and benzenes) were typical. Carbon tetrachloride probably resulted from contamination of the chlorine or was present in the raw water supply.

Table 2-17

Trihalomethanes in 113 Drinking Water Supplies

(micrograms per liter)

Trihalomethane	Phase I [1]	Phase II [2]	Phase III	
			Dechlorinated [3]	Terminal [4]
Chloroform				
Median	27	59	22	44
Mean	43	83	35	69
Range	ND-271	ND-47	ND-20	ND-540
Bromoform				
Median	D	D	D	D
Mean	3	4	2	4
Range	ND-39	ND-280	ND-137	ND-190
Chlorodibromomethane				
Median	D	4	2	3
Mean	8	12	6	11
Range	ND-190	ND-290	ND-114	ND-250
Dichlorobromomethane				
Median	10	14	6	11
Mean	18	18	9	17
Range	ND-183	ND-180	ND-72	ND-125
Total				
Median	45	87	37	74
Mean	68	117	53	100
Range	ND-457	ND-784	ND-295	ND-695

ND = Not detected

D = Detected but not quantifiable

[1] The water samples were stored at 2-8° C for 1-2 weeks before analysis.

[2] The water samples were stored at 20-25° C for 3-6 weeks before analysis.

[3] During analysis sodium thiosulfate was added to neutralize the chlorine, thereby quenching the reaction.

[4] During analysis the reaction proceeded to completion.

Source: U.S. Environmental Protection Agency, Office of Water and Waste Management.

GROUND WATER

Most users of ground water assume that is is safe and unpolluted, counting on the earth's natural ability to filter water. For the most part they are correct, but ground water occasionally becomes polluted—from wastes discharged to the ground, as through injection wells or septic systems; unintentional leaks from sewers or fuel tanks, for example, or leaching from sanitary landfills or from chemicals applied to soils; intrusion of seawater, saline ground water, or polluted river water caused by overpumping.

Water quality problems in ground water are compounded by the slow movement of the water. It may be polluted long before the pollution is detected at a well, and flushing the contaminated water from the acquifer may be impossible. Sometimes the only options are to declare the water unfit and seek alternate supplies or treat every gallon before use.

Ground water is often pumped from private wells for one family or for one farm. Usually the water is neither treated nor monitored. State programs to ensure the safety of ground water are few. The Safe Drinking Water Act of 1974 provides for regulation of water systems which commonly use ground water- systems with as few as 15 service connections or 25 individuals served.[71] Campgrounds, trailer parks, and small housing developments using common wells, then, are regulated, but not individual residences or farms. The Act sets requirements for states for controlling materials injected underground and for strictly protecting "sole source aquifers" that are used for drinking water supplies.[72]

Assessing the overall quality of ground water is much more difficult than evaluating surface water, and monitoring ground water receives only a fraction of the funds used for monitoring streams, lakes, and coastal waters. The data that are required by the Safe Drinking Water Act are not assembled in any accessible data base. Further, there is no compilation of state regulations on ground water. Certainly ground water has no equivalent to NASQAN, and state reports on water quality give scant attention to ground water. A Federal Interagency Task Force on Environmental Data and Monitoring headed by CEQ is working on plans to improve the information base for evaluating ground water.

Figure 2-21, a summary of national ground water quality, shows aggregate subregions reporting problems of ground water quality and indicates sources of the problems.

The importance of ground water management to water quality is exemplified by Long Island, where nearly 3 million residents rely on ground water for their entire fresh water supply. Surface water supplies are limited and are derived almost wholly from ground waters. For this reason, protection of quantity and quality is critical to the area.

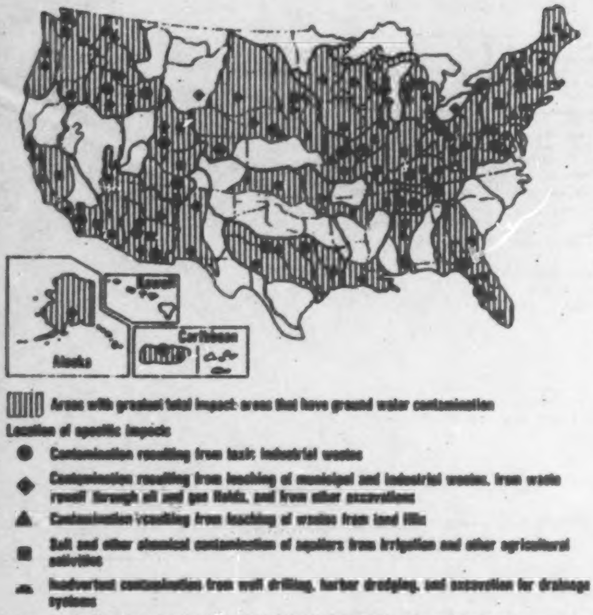
The Nassau-Suffolk Regional Planning Board, whose jurisdiction is all of Long Island east of Brooklyn and Queens, was one of the first agencies designated by EPA to develop a regional water quality management plan under Section 208 of the Federal Water Pollution Control Act.

Long Island traditionally relied on cesspools, septic tanks, and leaching fields for disposal of domestic wastes. But as populations increased, particularly in Nassau County, more areas have become sewered to prevent contamination of ground water. Sewage wastes are generally discharged to the ocean, resulting in less domestic waste waters available for recharging the aquifers. This situation plus the extended drought occasionally caused significant drops in Long Island's ground water table and lead to incidents of saltwater intrusion into the aquifers.

Comprehensive water supply studies show that the Long Island aquifers can yield some 600 million gallons per day, compared to current consumption of about 240 million gallons per day.[73] Al-

Figure 2-21

Ground Water Contamination 1977


Hawaii
Alaska
Caribbean
Areas with greatest total impact: areas that have ground water contamination
Location of specific impacts
● Contamination resulting from toxic industrial wastes
◆ Contamination resulting from leaching of municipal and industrial wastes, from waste runoff through oil and gas fields, and from other excavations
▲ Contamination resulting from leaching of wastes from land fills
■ Salt and other chemical contamination of aquifers from irrigation and other agricultural activities
Inadvertent contamination from well drilling, harbor dredging, and excavation for drainage systems

Source: U.S. Water Resources Council, "Preliminary Water Resources Problem Statements" (St. Louis, Mo.: Harbridge House, Inc., 1977), National Conference on Water, May 23-25, 1977, program materials, p. 13.

though the maximum yield would further drop the water table and could move the saltwater interface inland about 1 mile before equilibrium was reached, Long Island could readily meet its water needs if regional planning could ensure that supplies would be transported to the more populous areas.

The problems that affect the quality of Long Island ground water may be more difficult to solve. A Long Island report listed 19 possible causes of pollution, as shown in Table 2-18. Of greatest concern has been the large number of domestic onsite waste disposal systems. They can cause contamination from bacteria and viruses, detergents, metals, nutrients such as nitrates, and toxic compounds found in cleaners, solvents, and other household products. Also identified as significant potential contributors of toxic and other pollutants were industrial discharges, storm water recharge basins, landfill leachates,

Table 2-18

Sources and Causes of Ground Water Contamination

Systems, facilities, or sources designed to discharge waste or waste waters to the land and ground waters	Systems, facilities, or sources not specifically designed to discharge wastes or waste waters to the land and ground waters	Systems, facilities, or sources which may discharge or cause a discharge of contaminants that are not wastes to the land and ground waters	Causes of ground water contamination which are not discharges
Domestic onsite waste disposal systems Sewage treatment plant effluent Industrial waste discharges Storm water basin recharge Incinerator quench water Diffusion wells Scavenger waste disposal	Sanitary sewers Landfills Animal wastes Cemeteries	Highway deicing and salt storage Fertilizers and pesticides Product storage tanks and pipelines Spills and incidental discharges Sand and gravel mining	Airborne pollution Water well construction and abandonment Saltwater intrusion

Source: Geraghty & Miller, Inc., *Ground Water Conditions*, Interim Series 4, prepared for the Nassau-Suffolk Regional Planning Board (Hauppauge, N.Y., 1977), p. 19.

oil and chemical storage tanks, and animals (cattle, horses, dogs, chickens, turkeys, ducks).[74]

Data on ground water quality indicate that significant impacts have occurred in many areas of Long Island.[75] Elevated levels of nitrates, primarily from domestic waste disposal systems and fertilizers, were widespread, occasionally exceeding the EPA drinking water criteria of 10 milligrams per liter. This level is approximately 100 times the measured background concentration of 0.11 milligrams per liter. Heavy metals were found at many sites, generally in low concentrations. Recent sampling led to restrictions on 19 public supply wells because of the high levels of toxic organic contaminants found.

In order to prevent further pollution of ground water on Long Island and to allow recovery of contaminated aquifers, control of many sources and causes will be necessary. Changes in regulations for waste disposal and a detailed areawide plan will have to be made.

---FOOTNOTES

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70. Institute for Environmental Studies, *Monitoring To Detect Previously Unrecognized Pollutants in Surface Water*, prepared for the U.S. Environmental Protection Agency, EPA-560/6-77-015 (Springfield, Va.: National Technical Information Service, 1977).
71. Safe Drinking Water Act of 1974, Pub. L. 93-523, 88 Stat. 1661, 42 U.S.C. § 300(*f*) (1975).
72. *Id.* § 300(h).
73. Geraghty & Miller, Inc., *Ground Water Conditions*, Interim Series 4, prepared for the Nassau-Suffolk Regional Planning Board (Hauppauge, N.Y., 1977).
74. Suffolk County Soil and Water Conservation District, *Animal Waste*, undated.

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TABLE I-16. NIOSH alerts[a]

Substances	Date of NIOSH bulletin	Uses	Number of workers potentially at risk	Status of occupational standard	Other exposure standards	Comments
Chloroprene	1/30/75	Production of synthetic rubber	2,500	TLV	None	
Trichloroethylene[b]	6/6/75	Industrial solvent (dry cleaning, metal degreasing) extraction of caffeine from coffee, anesthetic	200,000	TLV proposed as permanent standard 10/20/75 (40 Fed. Reg. 49031)	FDA standards permit up to 10 ppm in ground coffee and up to 25 ppm in instant coffee (21 C.F.R. 121.1041)	In June 1975, the Health Research Group petitioned FDA to ban decaffeinated coffee containing trichloroethylene (Petition No. 75P-0132, acknowledged June 27, 1975). CPSC is preparing a monograph on consumer exposure
Ethylene dibromide[b] (EDB)	7/7/75	Leaded gas additive Manufacture of dyes and pharmaceuticals About 100 pesticide products	650,000 service station personnel 214 in manufacturing and merchandising 8,837 fumigate	TLV	None	Limited sampling of EDB by an EPA contractor found low levels in air and water at gas stations and 2 manufacturing sites. EDB is believed not to accumulate in the environment but to degrade at moderate rates in soil and water. An EPA report concludes that these low levels do not represent a significant health risk, and that increased use of unleaded gas since 1975 will reduce any possible risk from EDB added to gasoline.[c] The Environmental Defense Fund has petitioned EPA to investigate the possible health risk of EDB residues in fumigated grain, which have been detected at levels up to 6.10 ppm.[d]
Asbestos	8/8/75	Brakes and clutch assemblies	833,535 auto workers 67,679 garage workers 6,657 manufacturers	1974 permanent standard; more stringent standard proposed 10/9/75 (40 Fed. Reg. 47651)	EPA hazardous air pollutant standard (40 C.F.R.61)	The asbestos alert supplements the current occupational standard which applies to all work places but was primarily aimed at fabrication facilities and the construction trades, by calling attention to new data concerning the special hazard from asbestos exposure among workers who service brakes and clutch assemblies. A review of scientific literature on mesothelioma, a cancer of the lining of the abdominal cavity that is associated with asbestos exposure, has revealed at least four cases of these otherwise rare tumors in persons who had worked in jobs involving brake servicing. To protect an estimated 908,000 auto mechanics, garage workers, and fabricators, NIOSH has recommended interim procedures to minimize their exposure while alternatives are studied
Chromate compounds	8/22/75	Paints and anti-corrosives.	1,000 in production of pigments [illegible] in paint manufacturing 487,000 painters and persons using chromate paint primers.	TLV	None	An October 1975 U.S. steelworkers petition to OSHA for a zero exposure emergency temporary standard was denied on April 29, 1976.[e] OSHA intends to begin a rulemaking procedure to establish an occupational exposure standard for hexavalent chromium. NIOSH recommended an exposure standard not greater than 1 µg/m³ for carcinogenic chromium compounds and 25 µg/m³ for noncarcinogenic compounds (41 Fed. Reg. 18869-18870, May 7, 1976).
Hexamethyl phosphoric triamide (HMPA)	10/24/75	Solvent used in research labs.	5,000	None	None	
Polychlorinated biphenyls	11/3/75	Coolants and insulators in heavy electric equipment; hydraulic fluids, pesticide extenders, inks, etc.	12,000	TLV	FDA limits in food and food packaging (21 C.F.R. 122.10).	See text.
4, 4 Diamino diphenyl methane (DDM)	1/30/76	Production of polyurethane.	2,500	None	None	
Chloroform[b]	3/15/76	Production of fluorocarbons, general solvent in preparation of dyes, drugs, pesticides, etc. Used in pesticides, cough and cold preparations (mouth wash, toothpaste, etc.), as an anesthetic, and as common laboratory solvent.	40,000	TLV	None	On March 11, 1976, Nader's Public Citizens Health Research Group filed suit in the U.S. District Court of Appeals for the District of Columbia to order FDA to recall more than 2,000 drugs and cosmetic products containing chloroform. In April, FDA proposed two new regulations that would ban chloroform in these products. Regulations were finalized June 29 with July 29, 1976, as the effective date. The ban does not recall items already on the market (41 Fed. Reg. 13042).
*1, 2 Bis(ethylsulfonyl) 1,2-di-iodo-ethylene	3/26/76	None	None	None	None	Eye irritant; considered as a possible substitute for mercurial fungicides.
Dimethyl carbamoyl chloride (DMCC)	4/15/76	Synthesis of pharmaceuticals, chemical research.	Less than 200	None	None	

[a] Except one (as noted) all of these are known or suspected carcinogens. The one exception is indicated by an asterisk.

[b] Substance was also the subject of an NCI memorandum of alert.

[c] U.S. Environmental Protection Agency, Sampling and Analysis of Selected Toxic Substances: Task 2 Ethylene dibromide (Springfield, Va.: National Technical Information Service, 1975).

[d] Petition to Russell E. Train, EPA Administrator, July 14, 1975.

[e] Letter from Morton Corn, dated April 29, 1976.

Caption	Court/Cite	Date filed	Nature of Hazard	Type of Defendant	Status	Legal Theories Used
U.S. v. Midwest Solvent Recovery, Inc.	484 F. Supp. 138 (N.D. Ind. 1980).		14,000 55-gallon tons of toxic and low flashpoint wastes. Two fires emitted toxic fumes, injuring Indiana fireman. One EPA inspector injured. Serious top soil contamination.	dumpsite operator	decided; mandatory injunction issued, including a requirement that defendants dispose of onsite wastes properly	RCRA §7003, state state and federal nuisance law.
U.S. v. Vertac Chem.	489 F. Supp. 876 (E.D. Ark. 1980)		dioxin, toluene and other toxic wastes dumped openly on waste site, and running off into streams and bayou, killing all marine life and streamside vegetation.	manufacturer of herbicides	decided; mandatory injunction requiring clean-up	RCRA §7003, CWA §§ 302(a), 402, 309(b), 309(e), 504; Refuse Act 13.
U.S. v. Solvent Recovery Service of New England	496 F. Supp. 1127 (D. Conn. 1980)		Wastes percolating into local wells and discharging into local river		decided; mandatory injunction issued requiring clean-up	RCRA §7003; CWA §§301, 402, federal common law of nuisance
U.S. v. Occidental Petroleum Corp. et al.	No. Civ. S-79-989-MLS (E.D. Cal.)	2/6/81	Lathrop, Calif. on site lagoons and landfills leaching DBCP, BHC, DEF alpha radiation and other substances	owner/ operator of dumpsite	settled; defendant must clean up and monitor site	RCRA §7003; SDWA §1431; various Calif. provisions; state nuisance law (statutory).

Caption	Court/Cite	Date filed	Nature of Hazard	Type of Defendant	Status	Legal Theories Used
U.S. v. Laskin	No. C79-7594 (N.D. Ohio)	1980	PCB's released into navigable water		settled; defendant must clean up and monitor site; plus pay CWA fines	RCRA §7003, TOSCA §§15, 17; CWA §§301, 307, 309, 402.
U.S. v. Northeastern Pharmaceutical and Chemical Co., Inc.	No. 80-5066-CU-SW (W.D. Mo.)	9/9/80	dioxin dumped by haulers on a farm site within 2.5 miles of 50 rural residences	manufacturer and haulers	settled. Manufacturer must clean up site and haulers must pay fines	RCRA §7003.
U.S. v. American Ecological Recycle Research Corp. and GUMS	No. 80-A-811 (D. Colo.)	8/15/80	variety of toxics, some with low flash point, stored in 6,000 55-gallon drums on site near some residences and subject to very high winds. Toxics include toluene, benzene, PCB's. During last fire, 12 local firemen hospitalized with suspected cyanide poisoning.	owner/ operator	settled. Defendant must reorganize and investigate site, then close or continue in accordance with RCRA regulations.	RCRA §7003.

Caption	Court/Cite	Date filed	Nature of Hazard	Type of Defendant	Status	Legal Theories Used
U.S. v. Gulf Coast Lead	80-1127 Civ-T-K (M.D. Fla.)	10/9/80	lead, chromium, copper, sulphuric acid and nickel dumped on site, percolating through to groundwater, possibly reaching main drinking water supply for Tampa.	Manufacturer/ owner	Settled. Defendant must monitor and clean up site	RCRA §7003.
U.S. v. Waukesha County	No. 80-C-1070 (E.D. Wisc.)	12/1/80	Six miles of roadway sprayed with dioxin-containing herbicide. Numerous residences and farms within 100 ft. of area sprayed.	Municipality	Defendant required to investigate and rectify problem, under settlement	RCRA §7003 FIFRA §16(c).
U.S. v. Automated Industrial Disposal and Salvage Co., and Tipton Investment Service Co.	No. Civ. 2-80-138 (E.D. Tenn.)	8/1/80	TCE, toluene, trichloroethane, mythylene chloride and dichloropropane stored in 800 drums, many rotting. Leaching into groundwater and into creek, contamination of top soil. Residential homes nearby.	owner and operator		RCRA §7003 CWA §§504, 309

Caption	Court/Cite	Date filed	Nature of Hazard	Type of Defendant	Status	Legal Theories Used
U.S. v. W.R. Grace Co.	No. 80-748-C (D. Mass.)	4/17/80	TCE, dichloroethene, dichloromethane, ethylbenzene found in concentrations known to be dangerous, in groundwater due to leaching from dumpsite and lagoons. Two Acton, Mass. wells, accounting for 40% of the town's drinking water had to be closed.	Manufacturer/ owner	settled. Defendant must monitor and clean up site and acquifer	RCRA §7003.

Caption	Court	Date Filed	Nature of Hazard Alleged	Type of Defendant	Status	Legal Theories Used
United States v. [illegible], Inc. et al.	E.D. La.	Mar. 5, 1980	Darrow, La. site with 70 storage tanks, 900 drums and a sludge pit where pesticide residues were dumped presenting threat of toxic fumes	Owner-operator, previous owner and corp. officers	Partial settlement for prelim. relief on March 6, 1980	RCRA § 7003; Clean Water Act § 504; Clean Air Act
United States v. Chem-Dyne Corp., et al.	S.D. Ohio	Mar. 10, 1980	Hamilton, Ohio commercial disposal site with thousands of deteriorating drums posing fire, spill and fume hazards	Disposal co., lessors and receiver	In discovery; prelim. inj. denied pending state action appointing a receiver	RCRA § 7003
United States v. Lipari	D.N.J.	Mar. 21, 1980	Gloucester County, N.J. landfill leaching toxic wastes into groundwater and nearby recreational lake	Commercial disposal co.	In discovery	RCRA § 7003
United States v. [illegible], et al.	S.D. Iowa	Mar. 21, 1980	Malvern, Ia. storage area posing risk of fire and explosion and air pollution (toluene, acetone, methyl ethyl ketone)	Operator, owner of site and a generator	Generator settled by removal of drums	RCRA § 7003
United States v. Laskin	N.D. Ohio	Mar. 28, 1980	PCB disposal as boiler fuel or road material	Owner-operator	In discovery	TSCA § 6 (PCB provisions); RCRA § 7003; Clean Water Act § 311(a)
United States v. W.R. Grace	D. Mass.	April 17, 1980	Acton, Mass. plant landfill and unlined lagoon leaching into city drinking wells	Owner-operator (on-site plant dump)	Trial date set	RCRA § 7003
United States v. [illegible] Corp. et al.	E.D. Pa.	April 21, 1980	Enterprise Ave., Philadelphia landfill threatening to leach PCBs into water treatment plant and Delaware River	Owner-operators of commercial disposal site	In discovery	RCRA § 7003; TOSCA § 6(e); Refuse Act of 1899
United States v. [illegible]	S.D. Tex.	May 5, 1980	Pesticide formulation plant with accumulation of pesticide wastes presenting air pollution threat to nearby homes and schools	Owner, operators	In discovery	RCRA § 7003; Clean Air Act § 303
United States v. Seymour Recycling Corp., et al.	S.D. Ind.	May 9, 1980	On-site drums (40,000-60,000) deteriorating with threat of leaching and fires. Action follows state and federal administrative proceedings	Disposal companies, municipality and commissioners as owner of sites, receivers of disposal companies	In discovery	RCRA § 7003; Clean Water Act § 311; and unjust enrichment
United States v. Ottati and Goss, Inc.	D.N.H.	May 15, 1980	Kingston, N.H. disposal site and barrel reconditioning plant with risks of surface and groundwater contamination and fire hazard	Owner-operators, prior owner and corp. officers	New Case	RCRA § 7003; Clean Water Act 311 and 309
United States v. [illegible] International	W.D. Tenn.	May 30, 1980	Old [illegible] Dump leaching PCB's and TCE into Beech Creek and Tennessee River	City as owner-operator, generators	In discovery	RCRA § 7003; Clean Water Act § 309
United States v. Spectron, Inc.	D. Md.	June 17, 1980	Elkton, Md. waste and drums from solvent recovery co. contaminating local surface and groundwater with TCE and other toxics	Disposal co operator site owner	New case	RCRA § 7003
United States v. [illegible] et al.	N.D. Ill.	June 20, 1980	Deteriorating drums at Chicago site presenting fire and toxic hazard	Owner-operators	New Case	RCRA § 7003
United States v. American Ecological Recycle Research Corp.	D. Colo.	June 20, 1980	Jefferson County, Colo. site with 6,000 deteriorating drums presenting fire and toxic hazards	Owner-operator and corp. president	New Case	RCRA § 7003
United States v. Clear	N.D. Ill.	June 30, 1980	Disposal site of drums of flammable wastes	Owner-operator	New Case	RCRA § 7003
United States v. Fisher Calo Chemical and Solvent Corp., et al	N.D. Ind.	July 3, 1980	Fisher Calo waste reclamation site with landfill and lagoon presenting fire and toxic hazards to adjacent fish and game area, homes and trailer park	Operator and industrial park [illegible]	New Case	RCRA § 7003
United States v. South Carolina Recycling and Disposal	D.S.C.	July 6, 1980	Site with 7000 drums of flammable and reactive wastes	Owner-operator	New Case	RCRA § 7003
United States v. Petro Processors of Louisiana Inc.	M.D. La.	July 15, 1980	9-acre inactive and 55-acre active sites with toxic wastes entering Mississippi River and local wildlife habitats	Eleven chemical Co. generators	New Case	RCRA § 7003

Michigan Water Resources Commission Act of 1929, *Mich. Stat. Ann.* § 3.526.

44. *United States v. Petro Processors of Louisiana, Inc. et al.*, Civil Action No. 80-358-B (M.D. La., filed July 15, 1980).
45. *Kelley v. Ankersen*, No. 77-151279 (Mich. Cir. Ct. filed February 14, 1977).
46. Complaint, *supra* at 27, para. 140.
47. *New York v. Occidental Petroleum Corp.*, No. 41006 (N.Y. Sup. Ct., filed April 28, 1980).
48. *Philadelphia Chewing Gum Corp. v. Pennsylvania Department of Environmental Protection*, 387 A.2d 142 (Pa. Commw. Ct. 1978, *aff'd*, Nos. 66-67 (S.Ct. April 24, 1980).
49. 387 A.2d at 147.
50. *Id.* at 150.
51. Nos. 66-67 (S.Ct. April 24, 1980).
52. 387 A.2d at 151-152.

APPENDIX I

SUMMARY OF RCRA "IMMINENT HAZARD" LITIGATION

Caption	Court	Date Filed	Nature of Hazard Alleged	Type of Defendant	Status	Legal Theories Used
United States v. Kin-Buc, Inc., et al.	D.N.J.	Feb. 7, 1979	Landfill site with 70 million gallons of wastes leaching into surrounding wells	Owner-operator	Partial settlement on Jan. 30, 1980	RCRA § 7003; nuisance
United States v. Wade, et al.	E.D. Pa.	Apr. 20, 1979	Chester, Pa. disposal site running-off and leaching into Delaware River, causing fire hazard, presenting air pollution problem and risk of explosion	Owner-operator, hauler arranged disposers	In discovery	RCRA § 7003
United States v. Chemicals and Minerals Reclamation, Inc., et al.	N.D. Ohio	July 10, 1979	Improper storage of 6,000 drums in abandoned warehouse in downtown Cleveland, presenting fire and explosion hazard	Disposal Co.	Injunctive Order entered in Aug. 1979	RCRA § 7003
United States v. Midwest Solvent Recovery, Inc., et al.	N.D. Ind.	Nov. 16, 1979	Solvent reclamation facility with thousands of deteriorating drums of flammable and toxic wastes	Disposal/recycling companies and their officers, owners of sites	Order granting prelim. inj. Jan. 11, 1980	RCRA § 7003
United States v. Solvent Recovery Service	D. Conn.	Dec. 17, 1979	Southington, Conn. waste treatment facility contaminating city drinking water wells	Owner-operators	Motion to Dismiss pending	RCRA § 7003; Clean Water Act § 504
United States v. Hooker Chemical and Plastics Corp., et al.	W.D.N.Y.	Dec. 18, 1979	102nd St. landfill-bulk and drummed wastes leaching into Niagara River	Owner-operators of site	In discovery	RCRA § 7003; Clean Water Act § 309, 404, 504; Refuse Act of 1899; public nuisance
United States, et al. v. Occidental Petroleum Corp. et al.	E.D. Cal.	Dec. 18, 1979	Lathrop, Cal. on-site lagoons and landfills leaching DBCP, EDB, TPP [illegible] and other substances into local wells	Owner-operator	Motion for Partial Summ. Judgment pending	RCRA § 7003; Safe Drinking Water Act § 1431; Cal. Water Code § 13350; Cal. Health and Safety Code § 25189, § 25190; Cal. Gov. Code § 12607/ § 12600; public nuisance (statutory)
United States v. Hooker Chemical and Plastics Corp., et al.	W.D.N.Y.	Dec. 20, 1979	Love Canal landfill involving 21,000 tons of toxic wastes dumped by Hooker with publicized health impact	Original owner-operator, successor owners	In discovery	RCRA § 7003; Clean Water Act § 309 and § 504; Safe Drinking Water Act § 1431; public nuisance; Refuse Act of 1899
United States v. Hooker Chemical and Plastics Corp., et al.	W.D.N.Y.	Dec. 20, 1979	"S" Area landfill liquid and drummed toxic residues leaching into Niagara River and city's water treatment plant	Owner-operator	In discovery	RCRA § 7003; Safe Drinking Water Act § 1431; public nuisance; Refuse Act of 1899; Clean Water Act § 504
United States v. Hooker Chemical and Plastics Corp., et al.	W.D.N.Y.	Dec. 20, 1979	Hyde Park landfill—80,000 tons of wastes including dioxin leaching and run-off into wells and Niagara River	Owner-operator	In discovery	RCRA § 7003; public nuisance; Clean Water Act § 309 and § 504; Refuse Act of 1899
United States v. Waste Industries, et al.	E.D.N.C.	Jan. 11, 1980	Flemington landfill—contamination of ground water via leaching of toxic wastes into residential wells	Disposal company, county board and individual members, site owners	Motion to Dismiss pending	RCRA § 7003
United States v. Vertac Chemical Corp., et al.	E.D. Ark.	Mar. 4 1980	Jacksonville, Ark. land fill and drums containing dioxin and other toxic wastes	Owner-operators in chain of title	Preliminary injunction and opinion issued on May 12, 1980	RCRA § 7003; Clean Water Act § 307, 402, 309 and 504; Refuse Act of 1899; Arkansas Water and Air Poll. Control Act; Solid Waste Mgt. Act and Haz. Waste Mgt. Act

K.

STRICT LIABILITY

Appendix V-1

TO: Superfund §301(e) Study Group

FROM: Frank P. Grad, Reporter

RE: Strict Liability

DATE: November 3, 1981.

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I. Introduction

It would be appropriate to treat injuries from exposure to hazardous wastes under the doctrine of strict liability[1] because of the great and demonstrable hazard created by the disposal of such wastes, which cannot be entirely prevented by the exercise of due care. Moreover, proof of injury from exposure to hazardous wastes involves problems of scientific and medical proof which are likely to present insurmountable barriers to recovery in possible actions based on negligence, nuisance or trespass.[2] Further difficulties are created by long latency periods so that at the time of the discovery of the injury, the responsibilities of the generator, the hauler and of successive landowners may no longer be capable of proof. As in the case of product liability, reliance on strict liability also eases the economic burden, because it provides greater predictability of liabilities, permitting more effective spreading of costs through liability insurance with less likelihood of leaving the loss solely on the victim.

The modern history of strict liability (or liability regardless of fault) begins with Rylands v. Fletcher[3] in 1865 and, more recently, continues with two reformulations of the doctrine, first by the Restatement[4] in 1934 and then by the Restatement (Second)[5], adopted in 1976. The development of the doctrine has not been even -- the pendulum has swung between an emphasis on the dangerousness of the activity itself, and a consideration of the activity in the light of surrounding circumstances, particularly in light of the place or location where it is carried out. This latter emphasis focuses on the inappropriate or "unnatural" use of the land. The doctrine of strict liability has spread very widely, and Dean Prosser is correct in his statement that if one includes cases decided on the theory of nuisance, the Rylands v. Fletcher principle is "in reality universally accepted,"[6] but it is clearly not "universally" applied or interpreted in the same way. A count of how many jurisdictions follow one doctrine or another is also difficult to make,[7] because many modern cases cite and discuss all of the doctrines, sometimes with very little analytical differentiation. It is not at all clear, for instance, that all states would apply strict liability to injuries from exposure to hazardous wastes.

As the materials that follow indicate, strict liability is not absolute liability; defenses are available, and the application of strict liability yields to a number of other considerations.

II. Strict Liability for Dangerous Activities

A. Rylands v. Fletcher: Strict Liability for Abnormally Dangerous Activity.

The doctrine of strict liability based on the theory that a condition or activity is abnormally dangerous because of its "non-natural" character is usually traced to the English case, Rylands v. Fletcher.[8]

Under the principle developed since Rylands, the court determines whether an activity is "natural" by considering whether it is appropriate in the context of the place, and by reviewing the manner and relationship of the activity to the surroundings. The emphasis is on the relationship of the activity to its surroundings, not simply on whether or not the activity is ultrahazardous.

In Rylands v. Fletcher, decided in 1868, the defendants, mill owners, had constructed a reservoir upon their land. The water broke through and flooded the plaintiff's mine. Although the actual work was done by independent contractors and no negligence or trespass by the defendants was found, liability was imposed by analogy to the strict liability for trespassing cattle, dangerous animals and absolute nuisance. Rylands v. Fletcher, as limited by Lord Cairns's statement, stands for the principle that strict liability is imposed for a "non-natural" use of the defendant's land, as distinguished from "any purpose for which it might in the ordinary course of the enjoyment of land be used."[9] The criteria that the English courts have looked for, and that have been accepted in American cases, are (1) the character of the thing or activity, and (2) the place and manner in which it is maintained and its relation to its surroundings.[10]

A brief comparison of general nuisance theory to the Rylands theory suggests strengths and weaknesses of reliance on the latter. A nuisance may cause damage by causing visible or physical harm or by merely interfering with the plaintiff's right of use and enjoyment of land, i.e., with his convenience or peace of mind. The Rylands rule always requires physical damage to the plaintiff's person or property. Under a nuisance theory, mere threat of future injury may constitute harm, while under the Rylands theory, harm must be caused by a solitary incident or escape. A plaintiff's rights in a nuisance action stem from the right of use or enjoyment of land; a plaintiff's right to recover under a Rylands theory has different limits.[11]

Courts have applied Rylands in cases involving hazardous substances. Rylands was cited in City of Bridgeton v. B.P. Oil, Inc.[12] The city had brought an action against the owner and lessee of property to recover expenses incurred in preventing spread of an oil spill resulting from the escape of oil from a storage facility. The New Jersey Superior Court, on a motion for summary judgement, held that strict liability could be imposed on defendants who store ultrahazardous or pollutant substances.

Florida courts also have specifically applied the Rylands principle. The court in Cities Service Co. v. Florida[13] determined the non-natural character of phosphate slime storage by assessing the size of the risk. Using this approach, a court could classify the storage of hazardous wastes in industrial areas as a non-natural and inappropriate use of land if the disposal is large and the risk it presents is great.[14]

A strict liability theory based on Rylands does not rely solely on the dangerous character of the activity itself, but also on its appropriateness in the particular surroundings.

In a leading Texas case, Turner v. Big Lake Oil Co.[15] the plaintiff sued to recover damages for injury to property caused by the escape of salt water from ponds constructed and used by the defendants in the operation of their oil well. The salt water flowed over the grasslands of the plaintiff, killing his vegetation and polluting livestock watering holes.

Strict liability, according to the Texas Supreme Court, might be an appropriate rule for water damage cases in a "pluvial" environment, such as the England of Rylands. But the storage of water is an economic necessity in the semi-arid environment of Texas and the storage of salt water an absolute necessity for the Texas oil industry. Therefore, the court insisted on a showing of negligence before an action for damages could be sustained.

In Fritz v. E. I. DuPont deNemours & Co.,[16] a Delaware case, the plaintiff had been overcome by chlorine fumes which escaped from the defendant's plant. The plaintiff in Fritz contended that DuPont's possession and use of chlorine gas was "such a hazardous activity that DuPont could have reasonably foreseen that certain harm would result to any person within the area of operation in the event the chlorine should escape..."[17] The court said that the application of strict liability, if adopted at all, should be "confined to those operations which have connected with them a history of doing injury to others or the destruction of their property, and only in those cases where a nuisance by reason of their presence or use can be established."[18]

The nature of the activity was stressed in Fritz, but the court in line with an "abnormally dangerous" theory, weighed the policy not to "strangle corporate and industrial enterprise"[19] against the foreseeability of serious injury if the chlorine gas should escape.

On the basis of the evidence presented at bar, the court determined that the presence of chlorine gas at the plant was not "unusual" and was not "dangerous per se in the light of recognized industrial use."

In a later case, however, the Delaware Supreme Court allowed an action based on strict liability for damage from a blasting operation, Catholic Welfare Guild v. Brodney Corp.[20] The court distinguished this case from Fritz; the chemical plant in Fritz was located in a rural environment whereas the blasting took place in the city of Wilmington.

It may be expected that courts, applying the Rylands rule of strict liability or the later refinements of the First and Second Restatements of Torts would make similar distinctions, based on locale, environment, and economic values, in deciding cases regarding the disposal of hazardous wastes.

The Rylands theory specifically involves a balancing of opposing interests. Note that this, however, also occurs even in cases decided under the "ultrahazardous" doctrine of the Restatement, thus blurring distinctions between the Restatement and the Restatement (Second) "abnormally dangerous" criteria. This raises the question whether the disposal of hazardous wastes is a common or abnormally dangerous activity.

B. First Restatement -- "Ultrahazardous Activity"

The initial Restatement's reliance on the "ultrahazardous" nature of the activity to justify the application of strict liability was an apparent shift from the Rylands doctrine; the emphasis was more strongly placed on the dangerous nature of the activity itself, rather than on the appropriateness of the place where it was carried on.

Adopted in 1934, the first Restatement devotes Chapter 21 to a discussion of "ultrahazardous activities," defined in §520, which states:

> An activity is ultrahazardous if it:
> (a) necessarily involves a risk of serious harm to the person, land or chattels of others which cannot be eliminated by the exercise of the utmost care, and
> (b) is not a matter of common usage.[21]

This definition emphasizes two factors: unavoidable risk and unusual usage. Ultrahazardous activities are distinguishable from nuisances or negligent activities because an ultrahazardous activity has sufficient utility to justify the unavoidable risk. If it were not of sufficient utility, incurring the risk would represent negligence as defined in §282 of the Restatement.[22]

The Restatement's definition of "ultrahazardous" has been applied to rocket testing on ranch land,[23] pile driving in a peat bog,[24] dynamite blasting,[25] waterflood operations on property adjoining a capped oil well,[26] impoundment of phosphate slime in an earthen wall settling pond.[27] Among the activities not considered ultrahazardous as defined by Restatement §520 are refinery plants,[28] lawn sprinkler systems,[29] discharge of firearms,[30] transport of gasoline,[31] aviation,[32] maintenance of a dam,[33] maintenance of a soil conservation dam,[34] manufacture and sale of liquid seed disinfectant.[35]

Under the first Restatement, "one who carries on an ultrahazardous activity is liable to another whose person, land or chattels the actor should recognize as likely to be harmed by the unpreventable miscarriage of the activity for the harm resulting thereto from that which makes the activity ultrahazardous, although the utmost care is exercised to prevent the harm."[36] Thus, all injuries sustained because of the unique dangers of the ultrahazardous activity are the responsibility of the actor. The Restatement provides few defenses to a §519 action. Section 519 does not apply "if the activity is carried on in pursuance of a public duty imposed upon the actor as a public officer or employee or as a common carrier."[37] Nor does it apply

> "where the person harmed by the unpreventable miscarriage of an ultrahzardous activity has reason to know of the risk which makes the activity ultrahzardous and
> (a) takes part in it, or (b) brings himself within the area which will be endangered by its miscarriage
> (i) without a privilege, or
> (ii) in the exercise of a privilege derived from the consent of the person carrying on the activity, or
> (iii) as a member of the public entitled to the services of a public utility carrying on the activity.[38]

Thus, a salesman who enters blasting grounds as a business invitee may not recover for any injuries he may sustain due to blasting. On the other hand, a traveller on a public highway does not forfeit his right to recovery for harm done to him by the unpreventable explosion of dynamite which he knows is situated near the highway.[39]

A plaintiff is also barred from recovery in a §519 action if he is contributorily negligent by "intentionally or negligently caus(ing) the activity to miscarry, or (b) after knowledge that it has miscarried or is about to miscarry, ... fail(ing) to exercise reasonable care to avoid harm threatened thereby."[40] However, §524(1) specifically states th

(a) plaintiff is not barred from recovery for harm done by the miscarriage of an ultrahazardous activity caused by his failure to exercise reasonable care to observe the fact that the activity is being carried on or by intentionally coming into the area which would be endangered by its miscarriage."

Not only is contributory negligence not usually a defense in a §519 action, but neither are the contributing actions of third persons, animals and forces of nature.[41] The underlying reason is that those who engage in ultrahazardous activities have, for their own purposes, introduced a risk which is not normally an incident to the ordinary life of the community.[42]

C. Restatement (Second) -- "Abnormally Dangerous"

The Restatement (Second)'s, "abnormally dangerous" test adopted by the American Law Institute in 1976, reflected something of a return to the Rylands doctrine. Section 520 of the Restatement (Second) outlines factors that are important in determining the issue.

In determining whether an activity is abnormally dangerous, the following factors are to be considered:

> (a) existence of a high degree of risk and some harm to the person, land or chattels of others;
> (b) likelihood that the harm that results from it will be great;
> (c) inability to eliminate the risk by the exercise of reasonable care;
> (d) extent to which the activity is not a matter of common usage;
> (e) inappropriateness of the activity to the place where it is carried out and
> (f) extent to which its value to the community is outweighed by its dangerous attribute.

However, analysis of no one factor is determinative. An activity which is abnormally dangerous under one set of circumstances is not necessarily abnormally dangerous on all occasions. In determining whether activities involving hazardous wastes are abnormally dangerous, it is not necessary that each of the factors of §520 be present, particularly if others weigh heavily. It is clear, however, that considerations of the appropriateness to the place weigh heavily.[43] The Restatement (Second) test encourages courts to approach the question of strict liability on a case-by-case basis.[44]

Using the §520 definition, courts have found the following activities to be abnormally dangerous: pile driving,[45] storage of explosives,[46] operation of a propane gas storage yard.[47] Using an earlier draft of the Restatement (Second)[48] courts have found the following activities to be abnormally dangerous: crop dusting,[49] storage of poisonous gas,[50] storage of gasoline,[51] maintenance of a dam,[52] and highway transport of gasoline in a rural area.[53]

As in the first Restatement formulation, the strict liability of an operator of an abnormally dangerous activity does not extend to those who intentionally or negligently trespass, even though the trespasser has no reason to know that the activity is conducted there.[54] However, unlike earlier formulations, an operator will be strictly liable to persons coming upon the land in the exercise of a privilege, whether or not the privilege is derived from his consent or otherwise.[55]

Again, as in the first Restatement, the contributing actions of third persons, animals and forces of nature will not relieve the operator of liability,[56] except, perhaps, when the actions of the third party were deliberately intended to bring about the injury.[57] Nor will the victim's contributory negligence [58] relieve the operator of liability, except when the victim "knowingly and unreasonably subject[s] himself to the risk of harm from the activity..."[59]

In addition to continuing the first Restatement's defense that strict liability does not apply to activities carried out in pursuance of a public duty,[60] the Restatement (Second) adds the additional defense of assumption of risk by the victim.[61] As in all defenses involving assumption of risk, the defendant must show that the victim knew of the danger and voluntarily accepted the risk of injury.[62]

Whenever a balancing of factors is required under a strict liability theory, a notion of duty of care, responsibility or fault is easily implied as to choice of location or means, and strict liability begins to sound more like negligence, giving rise to similar problems of proof. So, for instance, in Doundoulakis v. Town of Hempstead,[63] the New York Court of Appeals, per Breitel, C.J., indicated that to establish a proper case for strict liability under the Second Restatement, in addition to showing that hydraulic landfilling under the circumstances posed grave risks, the plaintiff would have to submit evidence as to the availability and cost of alternative methods:

> It is not insignificant that alternative methods perhaps more time-consuming and expensive, but less dangerous, might have been available to defendants...[64]

Although the balancing emphasis in the Restatement (Second)'s "abnormally dangerous" test is theoretically different from the initial Restatement's "ultrahazardous" test, the distinction is not always clear in opinions applying either Restatement. California applies the ultrahazardous test,[65] yet, strict liability has been applied to blasting in a developed area,[66] but not to blasting in a deserted one.[67]

However, although the distinction between the two Restatements may be blurred in the opinions, a real distinction in emphasis exists. For example, in McLane v. Northwest Natural Gas Company[68] the Supreme Court of Oregon specifically disapproved the language in an earlier blasting case[69] according to which the character of the locality in which the blasting was carried on was not material. The Court noted that the language in the earlier case apparently was based on the first Restatement §520.[70]

D. Strict Liability Based on Magnitude of the Risk

The essential question which the formulations under Rylands and the Restatements have in common is whether the activity is one which carries risks of such magnitude that even if carried on with reasonable care, the defendant should be held strictly liable for its consequences. However, these formulations vary in regard to their emphasis on other factors. An alternative to these three formulations, while not imposing absolute liability for all injury from all risks, would focus on the risks actually created not just the risks and benefits known when the action occurred.

The application of strict liability without reliance on the criteria referred to in the Restatement (Second), and particularly without reference to the place or location where the activity is undertaken, seems appropriate where the risk is great and the environmental damage ubiquitous, as in the case of hazardous waste disposal. A recent New Jersey decision, New Jersey v. Ventron Corp.,[71] for instance, focuses on the risks created instead of applying the factors in the Restatements.

The trial court concluded that a series of owners of a mercury-processing plant were strictly liable for pollution of an adjacent creek. They were not liable for negligence as a basis for liability because the conduct was "reasonable in light of the state of knowledge as it then existed" but the defendants were liable on a "determination that the manufacturer.....of products utilizing chemicals or other pollutants which may cause harm if they escape into the environment should subject the producer to strict liability, irrespective of reasonable care, if in fact environmental pollution occurs."[72] Such an approach has already been used in federal pollution statutes with respect to claims for clean-up costs or damage. Section 311 of the Federal Water Pollution Control Act,[73] frequently relied on in the Superfund Legislation, imposes strict liability on an owner or operator of any vessel or onshore facility for the costs of removal of oil or a hazardous substance discharged in violation of the Act. The liability is limited unless the United States can show that the discharge was the result of "willful negligence or willful misconduct within the privity and knowledge of the owner" in which case the owner or operator is liable for the full amount of such costs.

The Price-Anderson Act imposes strict liability -- by requiring the waiver of defenses -- with respect to an "extraordinary nuclear occurrence to which an insurance policy or contract furnished as proof of financial protection or an indemnity agreement applies."[74] Similarly, the Superfund Legislation[75] imposes liability for costs of removal or remedial action and damages for injury to, destruction of, or loss of natural resources.[76] The Act does not refer to "strict liability" but expressly follows §311 of the Federal Water Pollution Control Act. It should be noted that in §302(d) the Act expressly abstains from indicating whether strict liability should apply to personal injury actions for exposure to hazardous wastes.

E. Analogies to Product Liability

The reasons for shifting the burden of risks and costs due to the dangerous nature of disposal of hazardous wastes are similar to the reasons underlying the imposition of strict liability in product liability cases. The underlying doctrine has been referred to as "enterprise liability."[77]

Although some of the circumstances in product liability cases involve injury or damage caused by a defect in a known product produced by an identifiable manufacturer, other elements are similar, and the problems have been analogized by commentators.[78]

Strict liability is imposed in product liability because it is recognized that without it most plaintiffs would face an insuperable burden of proof, and because the imposition of liability on the manufacturer most readily and efficiently provides for cost internalization and for equitable distribution of the costs of product-caused injuries, and ideally, liability on the part of those best able to prevent or reduce the risks. Similar -- and even greater difficulties of proof -- are encountered in the case of injuries caused by hazardous wastes. As in product liability, strict liability for hazardous waste disposal would also encourage the reduction of risk, by disposers. So, too, the distribution of costs of injury is most easily passed on by imposing liability on the owner/manager of disposal sites who can spread the costs most easily, passing them along by liability insurance, or by transferring them to the generator of wastes. The analogy can be most easily drawn in the "toxic tort" cases, where questions of scientific proof, long latency periods of disease, and high risk recur, whether the injury was caused by exposure to a chemical product or to toxic or hazardous waste.

The New Jersey Superior Court in City of Bridgeton v. B.P. Oil, Inc.[79] and in Dept. of Transportation v. PSC Resources, Inc.[80] analgized strict product liability to strict liability for storage of pollutants and pollution of a lake:

> While in New Jersey the concept of strict liability regardless of negligence has been developed in products liability cases, see *Herbstman v. Eastman Kodak Co.*, 68 N.J. 1, 342 A.2d 181 (1968), it has not yet been extended to tort cases such as the one at bar. As can be seen, however, there is a varying standard of care required in negligence cases, depending on the amount of danger involved in the activity engaged in. In the case at bar the activity, storage of oil, created a substantial risk, and defendant therefore had a high standard of care established by statute with the requirements for high standard because of inherent dangers involved in the storage, defendant must be required to exercise an extremely high burden. As has been discussed, strict liability has been applied to products liability cases. In view of our developing insight into the impact of pollution upon environment because of the nature of this activity and the statutory prohibition against pollution, this is the proper time to extend the concept of strict liability in this State to those who store ultra-hazardous or pollutant substances. This means that a defendant becomes liable for damages caused to a proper plaintiff.
>
> This rule is in reality neither new nor novel. For generations it has been the common law rule that an owner of realty is required to refrain from injury to the land of his neighbor. "*Sic utere tuo ut alienum non laedas*" is older than "when in the course of human events...." 9 *Coke* 59 1 Blackstones, Commentaries 306; Harper and James, Law of Torts, §124 at 71 (1965).[81]

III. Conclusion and Recommendation

Four tests have been used by courts as the basis for the imposition of strict liability for dangerous activities: (1) the *Rylands v. Fletcher* test, i.e., that a condition or activity is abnormally dangerous because of its "non-natural" character or inappropriateness to the location; (2) "ultrahazardous activity" under §§519 and 520 of the initial Restatement of Torts; (3) "abnormally dangerous activity" under the six criteria in §520 of the Restatement (Second) of Torts; and (4) a strict liability test relying on a consideration of the magnitude of the risk and on economic factors, such as a superior ability to bear or distribute the cost of injury.

All but the last test, (which relies merely on the magnitude of the risk and the ability to distribute costs) consider the place where the activity is carried on, or consider alternatives to the activity. Such considerations permit notions of fault to get in by the back door, because the choice of place, the question of appropriateness of the activity to a particular place, or choices in the manner of conducting the activity invariably import notions of duty of care, responsibility and fault. This, in turn, places the heavy burden of proof back on the plaintiff.

The essential question on which strict liability should turn is whether the activity carries risks of such magnitude -- even if done with reasonable care -- that the person who conducts it should be held liable for its consequences.

A test which focuses on the magnitude of the risk should therefore be adopted as the most appropriate formulation to deal with injuries from hazardous wastes. De-emphasis of considerations of locale and other criteria is also appropriate in the case of hazardous waste disposal, where the risk to be considered is not only the risk of personal injury, but also the risk to the environment.

FOOTNOTES

1. For discussion of strict liability generally, *see* HARPER and JAMES, THE LAW OF TORTS, chapter XIV Strict Liability and Liability Without Fault; PROSSER, TORTS, chapter 13 Strict Liability (4th ed. 1971). For the discussion of the application of strict liability to environmental, toxic tort and hazardous waste situations, *see e.g.* Baurer, T. *Love Canal: Common Law Approaches to a Modern Tragedy*, 11 ENVT'L L. 133, 138-142 (1980); Ginsberg, W.H. & Weiss, L., *Common Law Liability for Toxic Torts: A Phantom Remedy*, 9 HOFSTRA L.J. 859 (1981); Milhollin, G., *Long Term Liability for Environmental Harm*, 41 PITTSBURGH L. REV. 1, 6-8 (1979); Pfennigstorf, W., *Environment, Dangers and Compensation*, 1979 A.B.F. RESEARCH J. 349, 373-375; Note, *The Rylands v. Fletcher Doctrine in America: Abnormally Dangerous, Ultrahazardous, or Absolute Nuisance?* ARIZONA S.L.J. 99 (1978); Note, *Pursuing a Cause of Action in Hazardous Waste Pollution Cases*, 29 BUFFALO L. REV. 533 (1980); Note, *Strict Liability for Generators, Transporters and Disposers of Hazardous Wastes*, 64 MINN. L. REV. 949, 967-986 (1980).

2. *See* Ginsberg & Weiss, *supra* note 1, at 859. *See also* Congressional Research Service, Six Case Studies of Compensation for Toxic Substances Pollution 477-483 (June 1980).

3. *Rylands v. Fletcher*, 159 Eng. Rep. 737, 3 HSC 744 (1865), *rev'd sub nom* Fletcher v. Rylands, L.R. 1 (Ex. 265) (1866), *aff'd sub nom* Rylands v. Fletcher, L.R. 3 (H.L. 330) (1868).

4. Restatement of Torts (1934). For discussion, *see* text accompanying notes 22-43 *infra*.

5. Restatement (Second) of Torts (1976). For discussion, *see* text accompanying notes 44-71 *infra*.

6. W. PROSSER, THE LAW OF TORTS § 78, at 513 (4th ed. 1971).

7. For instance, Prosser states that the *Rylands* principle had been accepted "in some thirty jurisdictions." PROSSER, *supra* note 6, at 509. Ginsberg & Weiss assert that the "ultrahazardous test in the first Restatement had been adopted in more than half of the states, *supra* note 1, at 914.

8. 159 Eng. Rep. 737, 3 HSC 744 (1865), *rev'd sub nom* Fletcher, L.R. 3 (H.L. 330) (1868).

9. 3 H.L. 330, 338. A broader statement of the rule of the case is often mistakenly quoted from Justice Blackburn's intermediate opinion in the Exchequer Chamber:

> We think that the rule of law is that the person who for his own purposes brings on his land and collects and keeps there anything likely to do mischief if it escapes, must keep it at his peril, and if he does not do so is prima facie answerable for all damage which is the natural consequence of its escape.

L.R. 1 (Ex. 265, 270-80).

10. For a brief history of Rylands v. Fletcher and its progeny in the English courts, *see* PROSSER, *supra* note 6, at 505-508. *See also*, Ginsberg & Weiss, *supra* note 7.

11. This comparison is made in Note, *The Rylands v. Fletcher Doctrine in America: Abnormally Dangerous, Ultrahazardous, or Absolute Nuisance?*, 1978 ARIZ. ST. L.J. 99, 107-108.

12. 146 N.J. Super. 169, 369 A. 2d 49 (1976). The court also referred to the "abnormally dangerous" text of Restatement (Second) but held that the city, which was not an affected land owner, could not recover for its governmental cost incurred in the fire department clean up of the oil spill.

13. 312 So. 2d 799 (Ct. App. 1945).

14. Note, *Strict Liability for Generators, Transporters, and Disposers of Hazardous Wastes*, 64 MINN. L. REV. 949, 971 (1980).

15. 128 Tex. 155, 96 S.W. 2d 221 (1936).

16. 45 Del. 427, 75 A.2d 256 (1950).

17. *Id.* at 438.

18. 45 Del. at 437, 75 A.2d at 261.

19. *Id.* at 437-438.

20. 58 Del. 246, 208 A.2d 301 (1964).

21. Restatement of Torts §520 (1938).

22. *Id.*, Comment a.

23. Smith v. Lockheed Propulsion Co., 247 Cal. App. 2d 744, 56 Cal. Rptr. 128, 137 (1967).

24. Sacks v. Chiat, 281 Minn. 540, 162 N.W. 2d 243, 246 (Minn. 1968). (Opinion also refers to Rylands).

25. Gorton v. Phoenix Insurance Co., 339 F. Supp. 241, 245 (D. Mass. 1972).

26. Mowrer v. Ashland Oil and Refining Co., 518 F. 2d 659, 662 (7th Cir. 1975). (Opinion also mentioned Restatement (Second) and "abnormally dangerous" activities). Wheatland Irrig. Dist. v. McGuire, 537 P. 2d 1128, 1137 *rehearing granted* in part 552 P. 2d 115 (Wyo. 1976) (Court expressly rejects application of Rylands v. Fletcher to escaping waters).

27. Cities Service Co. v. State, 312 So. 2d 799, 802 (Fla. App. 1975). (Opinion also refers to Rylands and to non-natural use of the land).

28. Flanagan v. Ethyl Corp., 390 F. 2d 30, 31-32 (3rd Cir. 1968); Hennigan v. Atlantic Refining Co., 282 F. Supp. 667, 680 (E.D. Pa. 1967).

29. North Little Rock Transfer Co. v. Finkbeiner, 243 Ark. 596, 420 S.W. 2d 874, 881-82 (Ark. 1967). (Opinion blurs references to Rylands v. Fletcher and non-natural use of land).

30. Orser v. Vierra, 252 Cal. App. 2d, 60 Cal. Rptr. 708, 717 (Cal. App. 1967).

31. Ozark Industries, Inc. v. Stubbs Transports, Inc., 351 F. Supp. 351, 357 (W.D. Ark. 1972).

32. Little v. McGraw, 250 Ark. 766, 467 S.W. 2d 163, 164-165 (Ark. 1971).

33. Moulton v. Groveton Papers Company, 289 A. 2d 68, 71-72 (N.H. 1972).

34. Chicago and Northwestern Railway Company v. Tyler, 482 F. 2d 1007, 1009-10 (8th Cir. 1973).

35. First Nat. Bank v. Nor-Am Agricultural Products, Inc., 88 N.M. 74, 537 P. 2d 682, *cert. denied* 88 N.M. 29, 536 P. 2d 1085 (N.M.App. 1975).

36. Restatement of Torts §519 (1934).

37. Restatement of Torts §521 (1934). *See e.g.*, Town of East Troy v. Soo Line Railroad Co., 409 F. Supp. 326, 330 (E.D. Wis. 1976).

38. Restatement of Torts §523 (1934).

39. Restatement of Torts §523, Comment d.

40. *Id.* at §524(2) (1934).

41. Restatement of Torts §522. *But see* Trotter v. Callens, 89 N.M. 19, 546 P. 2d 867, 869 *cert. denied* 89 N.M. 207, 549 P. 2d 285 (N.M. 1976) (New Mexico still recognizes "Act of God" defense in strict liability action).

42. *See* Restatement of Torts §522, Comment a. The American Law Institute did not, however, express an opinion as to liability of the actor where the actions of the third party were deliberate and intended to bring about the injury. *See* caveat to §522.

43. The importance of the location of the activity is demonstrated by the following comparisons:

    Strict liability for stored explosives in thickly settled area: Exner v. Sherman Power Constr. Co., 54 F. 2d 510 (2d Cir. 1931); but no strict liability if isolated deep in a mine: Otero v. Burgess, 84 N.M. 575, 505 P. 2d 1251 (N.M. 1931), *cert. denied* 84 N.M. 560, 505 P. 2d 1236.

    Strict Liability for large quantity storage of inflammable liquids in thickly settled area: City of Bridgeton v. B.P. Oil, Inc., 146 N.J. Super. 169, 369 A. 2d 49 (N.J. Super. 1976); but not considered a nuisance *per se* and therefore not subject to a strict liability standard if stored in an isolated area: Shell Petroleum Corp. v. Wilson, 178 Okla. 355, 65 P. 2d 173 (Okla. 1936), Bucholz v. Standard Oil Co. of Indiana, 211 Mo. App. 397, 244 S.W. 973 (Mo. App. 1932).

Strict liability for blasting, affected by where it is carried on: Walczesky v. Horwitz Co., 26 Ohio St. 2d 146, 269 N.E. 2d 844 (1971), Davis v. L &W Constr. Co., 176 N.W. 2d 233 (Iowa 1970).

Strict liability for oil and gas wells in thickly settled areas: Berry v. Shell Petroleum Co., 140 Can. 94, 33 P. 2d 953 (1934); and in rural areas if located close to privately owned land: Mowrer v. Ashland Oil and Ref. Co., 518 F. 2d 659 (7th Cir. 1975).

Strict liability for water storage in inappropriate place: Rylands v. Fletcher, 159 Eng. Rep. 737, 3 HSC 744 (1865), *rev'd sub nom* Fletcher v. Rylands, L.R. 1 (Ex. 265) (1866), aff'd sub nom Rylands v. Fletcher, L.R. 3 (H.L. 330) (1868), Cities Service Co. v. State, 312 So. 2d 799 (Fla. App. 1975), Clark-Aiken Co. v. Cromwell-Wright Co., 367 Mass. 70, 323 N.E. 2d 876 (1975); but not if collected in rural area: Stroda v. State By and Through Highway Commission, 22 Or. App. 403, 539 P. 2d 1147 (1975) (irrigation canal); or if originally collected in a rural area so that current high density settlement has grown up with the collected water in its midst: Ramada Inns Inc. v. Salt River Valley Water Users' Ass'n, 111 Ariz. 65, 523 P. 2d 496 (1974) (irrigation canal).

44. Ginsberg & Weiss, *supra* note 1, at 19.

45. Vern J. Oja & Assoc. v. Washington Park Towers, 89 Wash. 2d 72, 569 P. 2d 1141, 1143 (Wash. 1977).

46. Yukon Equipment, Inc. v. Fireman's Fund Ins. Co., 585 P. 2d 1206, 1209, 1210, 1212 (Alaska 1978). (Reliance on Restatement (Second) in dictum, except in concurring opinion).

47. Zero Wholesale Gas Co. v. Stroud, 264 Ark. 27, 571 S.W. 2d 74, 78 (Ark. 1978).

48. Restatement (Second) of Torts, Tentative Draft No. 10 (1964).

49. Langan v. Valicopters, Inc., 88 Wash. 2d 855, 567 P. 2d 218, 221, 222, 223 (Wash. 1977).

50. Langlois v. Allied Chemical Corp., 258 La. 1067, 249 So. 2d 133, 139 (La. 1971) (decision based primarily on LA. CIVIL CODE Art. 667 and also referred to first Restatement).

51. Yommer v. McKenzie, 255 Md. 220, 257 A.2d 138, 140, 141 (Md. 1969).

52. Clark-Aiken Co. v. Cromwell-Wright Co., 367 Mass. 70, 323 N.E. 2d 876, 883, 886, 887, 888 (Mass. 1975).

53. Siegler v. Kuhlman, 81 Wash. 2d 448, 502 P. 2d 1181, 1187 (Wash. 1972), *cert. denied* 411 U.S. 983, 93 S. Ct. 2275, 35 L.Ed. 2d 959 (1973).

54. Restatement (Second) of Torts §520B (1976).

55. *Id.* at §520C.

56. *Id.* at §522.

57. *Id.* at Caveat to §522.

58. *Id.* at §524(1). *See also* Murray v. Beloit Power Systems, Inc., 450 F. Supp. 1145, 1147 (D.V.I. 1978) (dictum).

59. Restatement (Second) of Torts §524(2) (1976).

60. *Id.* at §521. *See also* McLane v. Northwest Natural Gas Co., 255 Or. 324, 467 P. 2d 635, 640-41 (Or. 1970) (public utility status not sufficient to claim public duty defense).

61. Restatement (Second) of Torts §523 (1976).

62. *Id.* at §523, Comment c. As to the defense of assumption of risk in general *see* Restatement (Second) of Torts §§496A-496G (1976). In accord with Restatement (Second of Torts §523, Trull v. Carolina-Virginia Well Co., 264 N.C. 687, 142 S.E. 2d 622 (1965) (consent of victim to the abnormal activity within his vicinity); Bringle v. Lloyd, 13 Wash. App. 884, 537 P. 2d 1060 (1975); Moore, Kelly & Reddish, Inc. v. Shannondale, Inc., 152 W. Va. 549, 165 S.E. 2d 113 (1968); M.W. Morley Constr. Co. v. Hungerford, Inc., 215 Va. 377, 210 S.E. 2d 161 (1974) (participation in the activity); Southwich v. S.S. Mullen, Inc., 19 Utah 2d 430, 432 P. 2d 56 (1967) (voluntarily coming within range of the abnormal danger).

63. 42 N.Y. 2d 440, 368 N.E. 2d 24 (N.Y. 1977).

64. 42 N.Y. 2d at 450, 368 N.E. 2d at 28.

65. See Luthringer v. Moore, 190 P. 2d 1 (Cal. Sup. Ct. 1948) (en banc) (strict liability was imposed for injuries sustained by an employee of a tenant of a building. The injuries were caused by the employee's inhalation of hydrocyanic acid gas used as a pesticide).

66. Ginsberg and Weiss, *supra* note 1, at 18, citing Colton v. Onderdonk, 69 Cal. 155, 10 P. 395 (Cal. 1886); Alonso v. Hills, 95 Cal. App. 2d 778, 214 P. 2d 50 (Cal. App. 1950).

67. *Id.*, at 916, citing Houghton v. Loma Prieta Lumber Co., 152 Cal. 500, 93 P. 82 (1907).

68. 225 Or. 324, 467 P. 2d at 635 (1970).

69. 255 Or. 324, 328-329, 467 P.2d at 638, disapproving Bedell v. Goulter, 199 Or. 344, 261 P. 2d 842 (1953).

70. 255 Or. 324, 328-329, 467 P. 2d at 638.

71. No. C-2996-75 (Super. Ct., Ch. Div. Bergen County, Aug. 27, 1979), *aff'd, modified and remanded*, 182 N.J. Super. 210 (App. Div. 1981).

72. *Id.*

73. Clean Water Act §311, 33 U.S.C.A. §1321.

74. 42 U.S.C.A. §§9601-57.

75. Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [Superfund], Pub. L. No. 96-510, 94 Stat. 2767 (1980), 42 U.S.C.A. §9601 et seq.

76. 42 U.S.C.A. §9607.

77. See Klemme, The Enterprise Liability Theory of Torts, 47 U. COLO. L. REV. 153 (1976), cited in Note, Strict Liability for Generators, supra note 14, at 977 n. 167.

78. See, e.g., Ginsberg & Weiss, supra note 1. See also Note, Strict Liability for Generators, supra note 14, at 977-985.

79. 146 N.J. Super. 169, 177-178, 369 A.2d 49, 54 (N.J. Super. 1976).

80. 159 N.J. Super. 447, 419 A.2d 1151 (N.J. Super. 1980).

81. City of Bridgeton v. B.P. Oil, Inc., 146 N.J. Super. at 176-77, 369 A.2d at 53-54 (N.J. Super. 1976).

L.

THE "RETROACTIVITY PROBLEM" -- SUPPORT FOR THE CONSTITUTIONALITY OF APPLYING THE DISCOVERY RULE AND THE PRINCIPLE OF STRICT LIABILITY TO CLAIMS FOR DAMAGES FOR INJURIES DUE TO EXPOSURE PRIOR TO THE CHANGE IN LAW

Appendix L - 1

TO: Superfund §301(e) Study Group

FROM: Frank P. Grad, Reporter

SUBJ: The "Retroactivity Problem"--Support for the Constitutionality of Applying the Discovery Rule and the Principle of Strict Liability to claims for damages for injuries due to exposure prior to the change in law.

DATE: January 22, 1982

The issue of the constitutional validity of retroactive legislation has been raised, and is here discussed, in the context of certain specific proposals under discussion by the Study Group. There has been general agreement that the discovery rule should app to claims for injuries growing out of exposure to hazardous wastes because of long latency periods common for such injuries. Thus, the statute of limitations for such a claim should begin to run only when the injured party knows, or should know in the exercise of reasonable discretion, that he has suffered an injury. If the Study Group proposals are adopted and become law in 1983, for example, and a person who has lived in close proximity to a hazardous waste site in 1958 discovers in 1984 that he suffers from a related disease or injury, the owner of the disposal site may assert that the application of the discovery rule to a disease that was caused prior to the adoption of the new rule in 1983 is a retroactive application of the law which should be regarded as a denial of constitutional due process because it extends, or revives, some claims that would be time-barred under earlier law.

The Study Group has also agreed to apply the doctrine of strict liability to certain claims for injuries caused by exposure to hazardous wastes. Such claims would be asserted in administrative compensation proceedings with liability for damages or compensation based on proof of injury and causation. Again, assuming that the Study Group's proposal became law in 1983, a person who was exposed to hazardous wastes in 1958 and who discovers his injuries from such exposure in 1984 would then claim damages or compensation under a law which was not in effect at the time of the exposure that caused the injury or disease. The owner of the disposal site will again assert that this is a retroactive application of the new law which denies him constitutional due process.

The retroactive application of the discovery rule and of the doctrine of strict liability would not only be challenged separately, but also in their particular combination, because the change in the rules, it might be asserted, not only extends the defendants' exposure to suit, but also enlarges his liability. Thus, in combination, the new rules would increase the defendants' total exposure to liability while depriving him of earlier available defenses. It would also be argued that the defendant was not in a position to insure against the expanded liability, because he could not have anticipated the change in the law that expanded his liabilities at the time the defendant was exposed to injury. Thus, the assertion of denial of constitutional due process would be based, ultimately, on the assertion that such a retroactive change of the rules is unfair.

From the plaintiff-victim point of view, "fairness" may have other attributes. There is no question that a judicial (other than legislative) change in the rules, both with respect to the running of the statute of limitations and the imposition of strict liability, would not give rise to any constitutional objection.[1] No such objections were raised, for instance, when the courts adopted strict liability in the product liability field. Neither were the English courts concerned over the retroactive application of strict liability in Fletcher v. Rylands.[2] Moreover, from the victim's point of view, the retroactive application of the rules may seem eminently fair because the victim-plaintiff had no knowledge of the risks at the time of exposure and, therefore, had no opportunity to protect himself. In many cases it might have been a practical impossibility for the plaintiff to have protected himself. The defendant-site operator should have had, and probably did have, some knowledge that he was engaged in an activity of some hazard. Furthermore, the recurring problem of attributing particular injuries or diseases to particular exposures is why, from the victim's point of view, there is no compelling reason to treat injury resulting from exposure to hazardous wastes deposited prior to the change of law in 1983 differently from injury resulting from exposure to hazardous wastes deposited after 1983 -- particularly when the consequences are identical and when the same hazardous substances were deposited, and continue to be deposited, over a long period of time so that it may be almost impossible to determine the precise source of exposure.

This memorandum will show that retroactive civil legislation is not unconstitutional per se. The memorandum addresses the constitutional issue only -- not the legislative policy considerations in regard to the fairness or wisdom of such retroactive legislation. When presented with issues of the kind discussed below, the courts will balance the interests involved. It is likely, based on prior holdings, that both the retroactive applications of the discovery rule, and the retroactive application of strict liability to owners/operators of hazardous waste disposal sites will meet the standards of constitutional due process.

I. THE CONSTITUTIONALITY OF A LIBERALIZED STATUTE OF LIMITATIONS

The general rule is that a legislature may shorten the statutory period within which a legal claim may be asserted[3] if the claim is not effectively extinguished because there is no longer a reasonable period of time to commence an action.[4] A legislature may also lengthen a statute of limitations,[5] even to the extent of reviving claims previously barred.[6]

In a leading case, Chase Securities Corp. v. Donaldson,[7] the Supreme Court reaffirmed the holding of the early landmark case in this area, Campbell v. Holt[8]:

> Statutes of limitation find their justification in necessity and convenience rather than in logic. They represent expedients, rather than principles. They are practical and pragmatic devices to spare the courts from litigation of stale claims, and the citizen from being put to his defense after memories have faded, witnesses died or disappeared, and evidence has been lost. Order of Railroad Telegraphers v. Railway Express Agency, 321 U.S. 342, 349. They are by definition arbitrary, and their operation does not discriminate between the just and the unjust claim, or the avoidable and unavoidable delay. They have come into the law not through the judicial process but through legislation. They represent a public policy about the privilege to litigate. Their shelter has never been regarded as what is now called a "fundamental" right or what used to be called a "natural" right of the individual. He may, of course, have the protection of the policy while it exists, but the history of pleas of limitation shows them to be good only by legislative grace and to be subject to a relatively large degree of legislative control.[9]

In a hazardous waste case, a defendant's strongest constitutional objection would be to the liberalized statute of limitations accompanying the statutory imposition of a strict liability standard. This objection would be based on an argument that the liberalized statute of limitations rule in combination with the retroactive statutory strict liability claim violates the defendant's right to substantive due process.

A second argument a defendant might use is that he had a vested right to the preenactment statute of limitations. This would be a weak argument, but it might add weight to an objection to a retroactive strict liability provision. No Supreme Court opinions directly support such an argument. However, defendant might cite two early opinions, Davis v. Mills, 194 U.S. 451 (1904) and Danzer v. Gulf & Ship Island RR Co., 268 U.S. 633 (1925) in which the Court held that the running of the statute of limitations had extinguished the right as well as the remedy. A defendant might argue that the reasoning in these cases should be extended to invalidate a liberalized statute of limitations which is enacted along with a statutory cause of action for strict liability, on the grounds that the defendant had acquired a vested right in the prior statute of limitations for whatever action(s) existed at common law.

According to one commentator, Slawson,[10] an alternative holding of Danzer is that statutes of limitations that are enacted as part of the right of action to which they refer cannot be lengthened so as to revive barred claims.[11] Slawson cited Davis for the proposition that even separately enacted statutes of limitations cannot be lengthened to revive barred claims if the statute is directed to the newly created liability so specifically as to warrant saying that it qualified the right.[12] Slawson noted that it is not "completely clear" that that was the holding in Davis, but he said that the Supreme Court in Chase Sec. Corp. v. Donaldson interpreted that as the holding.[13] The Supreme Court in Chase did refer to Danzer and Davis in a footnote,[14] and the Court's explanation of the two cases reflects the importance of whether a statute of limitations is integrally related to a new liability created by statute.[15]

In Chase, a Minnesota statute lifted the bar of the statute of limitations in a pending action under the state's Blue Sky Law. The Court held this constitutionally permissible and applied the essential holding in Campbell v. Holt,

> In Campbell v. Holt, this Court held that where lapse of time has not invested a party with title to real or personal property, a state legislature, consistently with the Fourteenth Amendment, may repeal or extend a statute of limitations, even after right of action is barred thereby, restore to the plaintiff his remedy, and divest the defendant of the statutory bar. This has long stood as a statement of the law of the Fourteenth Amendment...[16]

In both Danzer and Davis, the issue involved whether a claim was barred by the running of a specific statute of limitations applicable to a statutorily created cause of action.

In Danzer, the Supreme Court held that the Transportation Act had not revived claims previously barred under the Interstate Commerce Act which had created the new statutory liability and cause of action.

The court held that to revive the claims would have been unconstitutional. The court distinguished Campbell v. Holt, explaining that Campbell was an action on a contract for the recovery of money.

> By a state statute of limitations, the right of action had been barred. The statute was repealed before the action was commenced. It was held that the action could be maintained, and that such repeal did not deprive the debtor of his property without due process of law, in violation of the 14th Amendment.
> The decision rests on the conception that the obligation of the debtor to pay was not destroyed by lapse of time, and that the statute of limitations related to the remedy only, and that the removal of the bar was not unconstitutional. The opinion distinguishes the case from suits to recover real and personal property. That case belonged to the class where statutory provisions fixing the time within which suits must be brought to enforce an existing cause of action are held to apply to the remedy only. But such provisions sometimes constitute a part of the definition of a cause of action created by the same or another provision, and operate as a limitation upon liability. Such, for example, are statutory causes of action for death by wrongful act (The Harrisburg, 119 U.S. 199, 214, 30 L.Ed. 358, 362, 7 Sup. Ct. Rep. 140), and those arising under the Federal Employers' Liability Act [citations deleted]. This case belongs to the latter class. Section 206(8) [of the Transportation Act] will not be construed retroactively to create liability. To give it that effect would be to deprive defendant of the property without due process of law, in contravention of the 5th Amendment. [citations deleted][17]

In Davis, the Court found that a new statute of limitations regarding certain stockholders' actions did apply to preexisting obligations upon which the previous limitation already had begun to run. The constitutional issue was whether the defendant could plead the new Montana statute of limitations that limited actions to enforce a special statutory director's liability, if the action was brought in another state to enforce liabilities incurred before passage of the statute. The Court held that the defendant could plead the statute because it went to the right itself. (The Court stated that different considerations might apply to ordinary statutes as to stockholders).

In order to rely on Danzer and Davis and similar cases, a defendant in a hazardous waste case would have to show that the applicable preenactment statute of limitations was directed specifically to a statutorily created right. In the alternative, defendant might try to extend the reasoning in these cases, to argue that the preenactment statute of limitations was so closely tied to common law liability that defendant's reliance gave rise to a vested right to the preenactment statute. Neither of these arguments is likely to be successful.

Defendants' main argument would be that retroactive application of the discovery rule is a violation of their right to substantive due process because of the unfairness of the burden. Long-established case law suggests that this argument would fail if the objection is to the liberalized discovery rule alone. The success of an objection to the liberalized rule's enactment in conjunction with a strict liability provision would depend on a balancing of interests as discussed in Part II of this memorandum.

Of primary importance is the principle that retroactive civil legislation is not unconstitutional per se. Second, the nature of the interest claimed to be constitutionally protected is an important factor in the analysis, as is the nature and extent of the defendant's reliance on the prior law. This latter consideration is related to the reasons why courts generally uphold revised statutes of limitations. Similarly, it is debatable whether or not a defendant in a hazardous waste case would have a substantial constitutional claim to be relieved from liability for disposal and maintenance of hazardous waste which has caused injury and for which the defendant could be held liable under a negligence standard and under a judicial application of a strict liability standard under state law -- for two closely related reasons. First, although there is a substantial value to repose, there has always been an aversion to the idea that non-constitutional immunities "vest" upon a person's commission of a wrong.[18] "Values of reliance and repose fit comfortably the paradigm of conduct that the society wishes (or once wished) to encourage, but such values are distinctly less well suited to the paradigm of action that all admit should never have taken place."[19] Second, the likelihood does not appear great that defendants could claim total ignorance of dangers from hazardous waste.

II. THE CONSTITUTIONALITY OF A FEDERAL STATUTORY STRICT LIABILITY STANDARD FOR INJURY FROM HAZARDOUS WASTE

A retroactive statute, broadly defined, "is one which gives to preenactment conduct a different legal effect from that which it would have had without the passage of the statute."[20] Several constitutional provisions limit the government's power to impose sanctions retroactively on earlier private conduct. Article 1 of the Constitution forbids enactment of *ex post facto* laws by Congress[21] or by any state.[22] The first Supreme Court discussion of the *ex post facto* prohibition came in Calder v. Bull in 1798.[23] The decision strongly implied that the prohibition extended only to enactment of retroactive criminal law.[24] Subsequent decisions occasionally extended the prohibition to civil matters,[25] generally justifying the extension by portraying the civil legislation as criminal in character, i.e., punitive[26] or condemnatory.[27] However, the early twentieth-century saw a retreat from this justification[28] and in 1952 the Supreme Court stated that:

> It has always been considered that that which it [the Ex Post Facto clause] forbids is penal legislation which imposes or increases criminal punishment for conduct lawful prior to its enactment....Both of these doctrines as original proposals might be debatable, but both have been considered closed for many years and a body of statute and decisional law has been built upon them.[29]

Other constitutional provisions, however, do cover the retroactive effect of civil statutes. These are the Fifth and Fourteenth Amendment prohibitions against the deprivation of property without due process, the Fifth Amendment prohibition against taking private property for a public purpose without just compensation,[30] and the Article 1 §10 prohibition against state laws impairing the obligations of contracts. The contracts clause is not applicable in the instant case, but judicial construction of the contracts clause is analogous to construction of the due process clause. Although the contracts clause is phrased in absolute terms, many cases have held that compelling policy considerations may justify impairment.[31] A "reasonableness" standard has been utilized to determine the validity of retroactive legislation under the contracts clause.[32] For this reason, cases construing the contracts clause are often relied on in discussions of substantive due process and retroactive legislation.

"Reasonableness" is viewed in light of policy objections to retroactive legislation -- a policy in favor of citizens' freedom to rely on existing law and freedom from arbitrary changes in the law. The Federalist advocated protecting citizens not only from the tyranny of a single ruler, but from the "fluctuating policy" of the legislature.[33] A citizen should be able to plan his conduct with some degree of certainty of its legal consequences. He should be encouraged to choose the "proper" conduct based on a stable system of values, and should be able to feel secure as to past transactions. "The 'surprise' factor is generally held to be critical."[34] The most important element of a hazardous waste case allegedly involving retroactivity would be the extent to which industry could justifiably claim ignorance of the dangerous character of the waste. The defendant in a hazardous waste case would have to show a strong and reasonable reliance on some legal norm applicable at the time of the disposal of the waste that would preclude liability under a strict liability standard.

The strong policy favoring reliance on existing legal norms in order to protect citizens from arbitrary government action in its application must often yield to other factors and considerations. The courts acknowledge that not all conduct is planned primarily in reliance on legal consequences. Even where investment or action is so planned, the actors are aware that law is not static. "[R]eliance can never be absolute, since the legal order must constantly change to fit new factual conditions or new conceptions of the common good. Reliance on existing rules, therefore, must be sacrificed to some extent to the need for change. It is this basic and simple conflict that is often overlooked in writing on retroactivity."[35]

Similarly, penal law is written to encourage or compel a particular course of conduct, and retroactive legislation thwarts that goal because the actor is never given an opportunity to avoid the proscribed conduct. Much civil legislation, on the other hand, is designed to achieve the equitable distribution of the burdens and consequences of some conduct, and not to proscribe it entirely.

One commentator has submitted that the Supreme Court, when judging whether a retroactive statute meets the reasonableness test under the due process clause, will look to three major factors:

> [T]he nature and strength of the public interest served by the statute; the extent to which the statute modifies or abrogates the asserted pre-enactment right; and the nature of the right which the statute alters.[36]

Analyzed in this manner, as set forth infra, a statutory imposition of strict liability on a person who disposed of hazardous wastes prior to the change of law would, in all probability, meet the requirements of due process.

In Usery v. Turner Elkhorn Mining Co.,[37] the Supreme Court in 1975 upheld Title IV of the Federal Coal Mine Health and Safety Act of 1969, as amended by the Black Lung Benefits Act of 1972, which required a mine operator to provide compensation for a former employee's death or disability due to pneumoconiosis even if the former employee terminated his employment before the Act was passed.

Turner Elkhorn was very similar to a dispute which might arise from a retroactive federal strict liability statute applicable to injuries resulting from the earlier disposal of hazardous wastes. The mine operators argued that "to impose liability upon them for former employees' disabilities is impermissibly to charge them with an unexpected liability for past, completed acts that were legally proper and, at least in part, unknown to be dangerous at the time."

The Court reasoned that (1) legislation adjusting burdens and benefits of economic life have a presumption of constitutionality.,[38] (2) legislation readjusting rights and burdens is not unlawful solely because it upsets otherwise settled expectations even though the effect is to impose a new duty or liability based on past acts;[39] (3) retrospective aspects of legislation, as well as prospective aspects, must meet the test of due process, and the justifications for the latter may not suffice for the former;[40] (4) the court hesitated to approve the retrospective imposition of liability on any theory of deterrence or blameworthiness,[41] but found that imposition of liability for effects of disabilities caused in the past is justified as a rational measure to spread the costs of the employees' disabilities to those who have profited from the fruits of their labor -- the operators and the coal consumers; whether another cost-spreading scheme would have been wiser or more practical is not a constitutional question,[42] and, finally, (5) the purpose of the Act is not just to increase or supplement a former employee's salary to meet his generalized need for funds but, instead, to satisfy a specific need created by the dangerous conditions under which the former employee worked -- to allocate to the mine operator an actual, measurable cost of his business.[43]

(a) Public Interest

The strength of the public interest served by the statute has been an important factor in many retroactivity cases.

Recent examples of legislation that affects preenactment decisions in response to a significant public need may be found in the Consumer Product Safety Act of 1972 (CPSA)[44] and the Toxic Substances Control Act of 1976 (TOSCA).[45] Although these regulatory schemes are not retroactive in a strict constitutional sense, they do set standards for products produced and activities commenced prior to enactment, and indeed these statutes did affect certain settled expectations.

The CPSA has been commented on in the literature.[46] Congress established the Consumer Product Safety Commission as an independent regulatory agency with extensive authority to identify and regulate the safety hazards in virtually all products sold to the public. Its authority extends to new products and also to those already in the market place. Section 15[47] has become an important regulatory provision because it enables the Commission to regulate products which are already in the hands of consumers.

If a manufacturer designed and produced a product in the 1960's based upon the best available safety technology at that time, the product, if found to constitute a substantial product hazard under current safety design or performance criteria, would still be subject to the mandatory remedial provisions of section 15. The safety defect need not be present at the time of manufacture, but may appear at any time during the anticipated life of the product. Under section 15(c), if the Commission determines that it is in the public interest to take action against a substantial hazard and that notification is necessary to protect consumers adequately, it may order the manufacturer, or any distributor or retailer of the product to provide public notice of the hazard.[48] Under section 15(d), it may require that the manufacturer either recall and repair the defective product, or refund the purchase price to each consumer, less a reasonable allowance for use.[49]

Congress was aware of the need to affect products already on the market. It was stated in support of the Senate bill that "[w]e have armed the Commission with an administrative procedure which will enable it to act 'before the bodies stack up' while at the same time insuring affected industries due process."[50] In the debate over the conference bill, section 15 was characterized as providing "a relatively quick, effective mode of action for the Commissioner when he knows that a product already in the hands of the consumer is dangerous."[51]

Both the CPSA and TOSCA established comprehensive regulatory schemes; TOSCA, too, regulated chemical substances already on the market.[52] The Supreme Court may be more likely to tolerate retroactive provisions which are essential elements of a more comprehensive regulatory scheme. "The Court has recognized that the public interest in the complete coverage of such statutes is great because the overall legislative program might be seriously impaired if preexisting contracts and other private arrangements in contradiction to it were permitted to remain."[53] This reasoning appears to have been important to the Court's decision to uphold section 5 of the Federal Employers' Liability Act.[54] Section 5 voided all other insurance plans and compensation arrangements,[55] but the Court saw that as a necessary incident to imposing the new form of liability.[56]

The public interest in retroactive application of a statute is "particularly compelling in those cases in which the very transaction from which it is claimed a vested right has arisen is one of those which motivated the legislature to act."[57] For example, the Court readily held that holding companies could not validly claim a vested right to retain preenactment stock interests in public utilities after Congress authorized the Securities and Exchange Commission to order holding companies to divest themselves of public utility stocks.[58] In a similar vein, after the passage of the Hepburn Act,[59] which prohibited giving rail transportation in exchange for anything but cash-paid fare, the Court sustained an argument of the railroad that a lifetime pass previously issued in a settlement of a tort claim was no longer valid.[60]

Congress could express substantial public interest in unequivocably recognizing the application of a strict liability standard to defendants in hazardous waste cases and in providing that a cause of action for injury from hazardous waste arises when the injury is or should be discovered.

It is not unimportant that Congress has already established the strong federal interest in regulation of hazardous wastes, and, therefore, in addition to that interest in adequately preventing injury, the federal government could demonstrate a strong interest in uniformity of remedies for what is a national problem. It is likely that a strict liability standard exists for some activities in most, if not all states, whether explicitly under a "strict liability" theory or under a nuisance theory. On a national basis, however, the extent of uniformity in the application of a strict liability standard under state law in hazardous waste cases is unclear. This is due in part to the dearth of reported cases in this area of the law. A major explanation for the lack of judicial opinions is the fact that so many cases are settled. However, the national interest in the hazardous waste problem is obvious and is evidenced in the Superfund legislation.

Federal legislation could expressly recognize the strong factual basis for the statutory changes. Although many of the injuries associated with hazardous waste exposure have long latency periods and adverse health effects, including cancer, may not appear until twenty to forty years after exposure, statutes of limitations often begin to run at the moment of exposure rather than at the time injury is or should be discovered. A change of law which provides that such statutes begin to run when the injury is or should be discovered, if applied to injuries resulting from pre-change of law exposures, would serve in many cases to revive claims which were extinguished before the potential claimants ever knew of their injuries.

(b) Preenactment Right

In addition to the factor of the public interest involved, the Court will consider whether and to what extent the retroactive legislation abrogates a preexisting right.[61] Mr. Justice Holmes said, in the famous governmental takings case, Pennsylvania Coal Co. v. Mahon,[62]

> Government could hardly go on if to some extent values incident to property could not be diminished without paying for every such change in the general law. As long recognized, some values are enjoyed under an implied limitation and must yield to the police power. But obviously the implied limitation must have its limits, or the contract and due process clauses are gone.[63]

Thus, the greater the alteration of preexisting legal rights, the more suspect the retroactive legislation. Ordinarily, if the retroactive legislation completely destroys those preexisting rights, the Court will give the greatest weight to this factor.[64]

Where the preexisting rights have merely been modified, however, the Court has been more flexible. For example, legislation to address the problems of housing shortages, which prevented landlords from evicting tenants after expiration of their leases, provided they continue to pay a reasonable rent, was upheld.[65] During the depression, Congress was permitted to limit to three years' rent the claim of a lessor against a bankrupt for breach of a lease with fourteen years to run, notwithstanding a clause in the lease providing for complete indemnity.[66] The Minnesota Mortgage Moratorium Law upheld, in the leading contracts clause case, Home Bldg. & Loan Ass'n v. Blaisdell,[67] provided for extension of the period of redemption from foreclosure sales upon continued payment by the mortgagor of all or a part of the reasonable value of the income on the property, or reasonable rental value.

Where the modification of preexisting right will come close to extinguishing that right, however, the Court has been less likely to sustain the legislation. For example, in W.B. Worthen Co. v. Kavenaugh,[68] municipal improvement bondholders had a preenactment right, upon default, to take possession of the land mortgaged to secure the bonds without liability for rent during the redemption period. A statutory amendment would have allowed the defaulting debtor to retain possession without paying anything to the bondholder for a minimum six-and-one-half year redemption period. The Court held the amendment unconstitutional because it destroyed "nearly all of the incidents that give attractiveness and value to collateral security."[69] The extent to which the preexisting right would be modified has also been a major consideration in the Court's analysis of the takings clause.[70]

In addition to the significance of the public interest and the extent to which preexisting right are modified, the Court will examine the nature of the preexisting right. For example, "[a]lthough the Court has refused to give any significant weight to the fact that the right modified by a retroactive statute has been asserted in a suit prior to the passage of the statute, once such a right has been reduced to judgment, the interest in stability is present to a significantly greater degree than at any time before judgment"[71] and therefore retroactive legislation affecting such judgments will be held unconstitutional.[72]

Retroactive legislation which merely serves to enforce the intentions of the original parties to an agreement will also routinely be upheld, since in such cases, assertion of a preenactment right to avoid the obligation is tantamount to admitting an originally fraudulent intent.[73] Similarly, the Court has almost always held "curative" legislation designed to restore the status quo, as, e.g., where Congress validates official acts originally performed, unintentionally, without proper authority.[74]

Retroactive legislation to redistribute or withdraw statutory gratuities have been upheld, though it may sometimes be difficult to distinguish a gratuity from a right.[75]

Conclusion:

The enactment of the Resource Conservation and Recovery Act in 1976 -- particularly of title C which deals with hazardous wastes -- and of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Superfund Legislation) clearly recognizes the public interest in the protection against the hazards of the disposal of hazardous wastes.

In light of the public interest in the compensation of victims, the application of strict liability for injuries resulting from exposure to hazardous wastes disposed of prior to the change of law is essential because otherwise the victims would be without any effective remedy. With latency periods of 20 to 30 years or more, it would be virtually impossible for a plaintiff to prove a case based on negligence or failure to meet a duty of care 20 or 30 years earlier.

As indicated, the burden of such a change of rules of liability would fall on the industries which benefited from earlier hazardous waste disposal practices, and these industries may be expected to pass along the costs to the general public. The balance of interests is likely to favor retroactive application, even though countervailing interests and costs to the industries involved are recognized.

FOOTNOTES

1. It is unclear why there is judicial hostility to retroactive lawmaking by legislatures when its necessity is recognized for judicial lawmaking. This, of course, is justified, at least partially, on the grounds that the court is finding the law, not making it. It is justified also by reference to characteristics of judicial decisionmaking. One commentator has suggested that judicial lawmaking has four important safeguards absent from legislating. Slawson, "Constitutional and Legislative Considerations in Retroactive Lawmaking," 48 Calif. L. Rev. 216 (1960) (hereafter "Slawson"). The first two relate to protection for future litigants from the effects of stare decisis. The latter two, however, are pertinent here:

    > (3) judicial rule-making is the product of reasoning from generally accepted premises, not fiat and therefore its course may be predicted with some confidence at the time when action must be taken in reliance on legal effects.
    >
    > (4) judicial rules are created by a disinterested body, thereby diminishing the chance that prejudice or other irrational factors will control the decision.

    Id. at 245.
    While these factors may at least partially explain this problem of jurisprudence, they are clearly insufficient. Decisions which create apparently new doctrines, overrule past decisions, thwart reliance on the status quo created by the overruled decisions in much the same way that legislation would. In fact, retroactive legislation may be enacted to correct for the unsettling effects of the new decisions.

    There has long been a distinction between retroactive legislation and retroactive judicial rulemaking. The distinction originated in a common law legal system and not one like the American legal system in which legislation plays at least as great a part as the common law.

2. 159 Eng. Rep. 737, 3 HSC 744 (1865), *rev'd sub nom*, Fletcher v. Rylands, L.R. 1 (Ex. 265)(1866), *aff'd sub nom* Rylands v. Fletcher, L.R. 3 (H.L. 330)(1868).

3. Ochoa v. Hernandes Y Morales, 230 U.S. 139 (1913).

4. Terry v. Anderson, 95 U.S. 628 (1877).

5. Chase Securities Corp. v. Donaldson, 325 U.S. 304, 311-312 (1945).

6. Campbell v. Holt, 115 U.S. 620 (1885).

7. 325 U.S. 304 (1945).

8. 115 U.S. 620 (1885).

9. 325 U.S. at 314.

10. Slawson, *supra* note 1.

11. *Id.* at 242.

12. *Id.*

13. *Id.* n.132.

14. 325 U.S. at 312 n.8.

15. *Id.*
Appellant invokes the principle of our decisions in William Danzer & Co. v. Gulf & Ship Island R. Co., 268 U.S. 633 (1925), Davis v. Mills, 194 U.S. 451 (1904). But the state court so construed the relationship between its limitation acts and the state law creating the asserted liability as to make these cases inapplicable, and we do not think it did so improperly. In the Danzer case it was held that where a statute in creating a liability also put a period to its existence, a retroactive extension of the period after its expiration amounted to a taking of property without due process of law. Read with the Danzer case, Davis v. Mills stands for the proposition that the result may be the same if the period of limitation is prescribed by a different statute if it "was directed to the newly created liability so specifically as to warrant saying that it qualified the right." 194 U.S. 454. But the situation here plainly does not parallel that in the Danzer case, and the state court whose province it is to construe state legislation has found no parallel to the Davis case. At the time this action was commenced the Blue Sky Law of Minnesota had imposed on appellant a duty; it had not explicitly created a liability. The liability was implied by the state's common law; the period of limitation was found only in the general statute of limitations enacted many years earlier. The state court concluded that the challenged statute did not confer on appellees a new right or subject appellant to a new liability. It considered that the effect of the legislation was merely to reinstate a lapsed remedy, that appellant had acquired no vested right to immunity from a remedy for its wrong in selling unregistered securities, and the restatement of the remedy by the state legislature did not infringe any federal right under the Fourteenth Amendment, as expounded by this Court in Campbell v. Holt.

16. 325 U.S. at 315-316 (1944).

17. 268 U.S. at 636-637 (1925).

18. *See, e.g.*, State v. Arlin, 39 N.H. 179, 181 (1859); Smith, "Retroactive Laws and Vested Rights", 6 TEX. L. REV. 231 (1928)

19. Tribe, AMERICAN CONSTITUTIONAL LAW, §10-1 at 475 (1978).

20. Hochman, "The Supreme Court and the Constitutionality of Retroactive Legislation," 73 HARV. L. REV. 692 (1960) (hereafter "Hochman"). Compare the definitions by Cooley, The Limits to Legislative Power in the Passage of Curative Laws, 12 CENT. L.J. 2 (1881), and Slawson, *supra* note 1, at 216-20. Slawson divides retroactive laws into two types: (1) "method retroactivity." which refers to laws which impose rights and duties based on preenactment events which have occurred and terminated; and (2) "vested rights retroactivity" which refers to laws which substantially disturb patterns of conduct or investment, as, *e.g.*, the 18th Amendment with respect to 19th Century liquor manufacturers. As the changes in statutes of limitations and standard of liability applicable to waste site maintenance do not fall easily into either category, the author prefers Hochman's more streamlined definition.

21. Art. 1, §9, cl. 3.

22. Art. 1, §10, cl. 1.

23. 3 U.S. (3 Dall.) 386 (1798).

24. *Id.* at 390 (Chase, J.). *See also* the concurring opinion of Paterson, J. and Iredell, J., which favored an express statement that the restriction applied only to retroactive criminal legislation. *Id.* at 397 (concurring opinion of Paterson, J.) and 399-400 (concurring opinion of Iredell, J.).

25. *See* Fletcher v. Pech, 10 U.S. (6 Cranch) 87 (1810) (Legislature cannot annul, as tainted by bribery, a land grant by previous legislature). *But see* Carpenter v. Pech, 58 U.S. (17 How.) 456 (1855) (Legislature may impose new tax on bequests by persons deceased before enactment; ex post facto clause applicable to criminal legislation only).

26. *See* Cummings v. Missouri, 71 U.S. (4 Wall.) 277 (1867) (legislature may not require expurgatory oath of those seeking to enter ministry).

27. Ex Parte Garland, 71 U.S. (4 Wall.) 333 (1867) (Legislature cannot disqualify former Confederate sympathizers from specifically enumerated occupations).

28. *See* Johannesson v. United States, 225 U.S. 227 (1912); Mahler v. Eby, 264 U.S. 32 (1924). These were immigration law cases in which plaintiffs claimed that statutes which permitted revocation of citizenship and deportation violated the ex post facto prohibition. Despite the severity of the consequences, *i.e.*, punitive character, and the implication of moral condemnation, the courts would not extend the prohibition to these pieces of civil legislation.

29. Harisiades v. Shaughnessy, 342 U.S. 580, 594 (1952).

30. *See, e.g.*, Home Building & Loan Ass'n v. Blaisdell, 290 U.S. 398 (1934); *See generally* WRIGHT, THE CONTRACT CLAUSE OF THE CONSTITUTION (1938); Hale, "The Supreme Court and the Contract Clause," 57 HARV. L. REV. 512 (1944) (hereafter "Hale").

31. *See* Home Bldg. & Loan Ass'n v. Blaisdell, 290 U.S. 398 (1934); Chase Sec. Corp. v. Donaldson, 325 U.S. 304 (1945).

32. *See, e.g.*, Veix v. Sixth Ward Bldg. & Loan Ass'n., 310 U.S. 32 (1940). *See also* Hale, *supra* note 30, at 890-91.

33. THE FEDERALIST NO. 44, at 279 (Lodge ed. 1878) (Madison), cited in Hochman, *supra* note 20, at 692.

34. Hochman, *supra* note 20, at 696.

35. Slawson, *supra* note 1, at 226. *Compare* Stimson, "Retroactive Application of Law - A Problem in Constitutional Law," 38 MICHIGAN L. REV. 30, 37-38 (1939).

36. Hochman, *supra* note 20 , at 697; *cf.* Annot., 65 L.Ed.2d 1219, 1231 (1981).

37. 428 U.S. 1 (1975).

38. *Id.* at 15.

39. *Id.* at 16.

40. *Id.* at 17.

41. *Id.* at 17-18.

42. *Id.* at 18, 19.

43. *Id.* at 19.

44. The Consumer Product Safety Act (CPSA), 15 U.S.C. §§2051-81 (Supp. 1980) was passed in the final days of the 92nd Congress and was signed by the President on October 27, 1972. The Commission did not begin operations, however, until May 14, 1973, upon the swearing in of four of five of its Commissioners.

The discussion of CPSA in this memorandum draws on the discussion in "Federal Regulation of 'Substantial Product Hazards': An Analysis of Section 15 of the Consumer Product Safety Act," (Hosmer) 25 AMER. U.L. REV. 717 (1976).

45. 15 U.S.C. §2601 et seq. (Supp. 1980).

46. "Federal Regulation of 'Substantial Product Hazards,'", supra note 44.

47. 15 U.S.C. §2064.

48. CPSA §15(c), 15 U.S.C. §2064(c).

49. CPSA §15(d), 15 U.S.C. §2064(d).

50. 118 CONG. REC. 36,199 (1972) (remarks of Senator Magnuson).

51. Id. at 21,902 (remarks of Senator Eagleton).

52. 15 U.S.C. §2605.

53. Hochman, supra note 20 , at 701.

54. 35 Stat. 66 (1908), 45 U.S.C. §55.

55. See Philadelphia, B & W.R.R. v. Schubert, 224 U.S. 603 (1912).

56. Id. at 609, quoting from Second Employers' Liability Cases, 223 U.S. 1, 52 (1912).

57. Hochman, supra note 20, at 701-702.

58. American Power and Light Co. v. SEC, 329 U.S. 90, 106-07 (1946); North American Co. v. SEC, 327 U.S. 686, 707-10 (1946).

59. 34 Stat. 587 (1906), 49 U.S.C. §6(7).

60. Louisville & N.R.R. v. Mottley, 219 U.S. 467 (1911). See also New York Central & H.R.R.R. v. Gray, 239 U.S. 583 (1916).

61. See Hochman, supra note 20, at 711-17.

62. 260 U.S. 393 (1922).

63. Id. at 413.

64. *See* Hochman, *supra* note 20, at 712.

65. Marcus Brown Holding Co. v. Feldman, 256 U.S. 170 (1921); Block v. Hirsh, 256 U.S. 135 (1921).

66. Kuehner v. Irving Trust Co., 299 U.S. 445 (1937).

67. 290 U.S. 298 (1934).

68. 295 U.S. 56 (1935).

69. *Id.* at 62.

70. Pennsylvania Coal Co. v. Mahon, 260 U.S. 393 (1922). Justice Holmes stated:

> One fact for consideration...is the extent of the diminution [of the value of the preexisting right]. When it reaches a certain magnitude, in most if not in all cases there must be an exercise of eminent domain and compensation to sustain the act. So the question depends upon the particular facts.

The prohibitions against takings has occasionally been used to invalidate retroactive legislation. *See* Louisville Joint Stock Land Bank v. Radford, 295 U.S. 555, *602* (1935) (dictum); *cf.* Pennsylvania Coal (alternative holding). However, the Supreme Court has also used the due process clause in these decisions and the generally accepted view seems to be that the takings clause applies only to direct appropriations of private property or diminishment of its permissible uses. *See* Norman v. Baltimore & O.R.R., 294 U.S. 240, 305-06 (1935).

71. Hochman, *supra* note 20, at 718.

72. *See, e.g.,* Welch v. Henry, 305 U.S. 134 (1938); Milliker v. United States, 283 U.S. 15, 21 (1931). An exception is generally made in the area of estate taxes, where formulation of the estate is often made with an eye to its tax consequences. *See, e.g.,* Untermeyer v. Anderson, 276 U.S. 440 (1928); Blodgett v. Holden, 275 U.S. 142 (1927), *modified*, 276 U.S. 594 (1928).

73. *See, e.g.,* Randall v. Krieger, 90 U.S. (23 Wall.) 137 (1875) (validating power of attorney executed by married women for the sale of Minnesota land).

74. *See* Slawson, *supra* note 1, at 238-42.

75. *See, e.g.,* Cummings v. Deutsche Bank und Discontogesellschaft, 300 U.S. 115 (1937) (return of confiscated enemy alien property is a gratuity; plaintiff, who had fulfilled all conditions for its return, had acquired no vested right to its return). *See also* Arnett v. Kennedy, 416 U.S. 134 (1974)"([w]here the grant of a substantive right is inextricably intertwined with the limitations on the procedures which are to be employed in determining that right, a litigant in the position of appellee must take the bitter with the sweet." 416 U.S. at 153-154.

M.

PROPOSAL FOR USE OF REBUTTABLE PRESUMPTIONS IN THE PROOF OF CAUSATION IN ADMINISTRATIVE COMPENSATION PROCEEDINGS TO COMPENSATE FOR INJURIES OR DISEASE RESULTING FROM EXPOSURE TO HAZARDOUS WASTES

TO: Superfund §301(e) Study Group

FROM: Frank P. Grad, Reporter

SUBJ: Proposal for Use of Rebuttable Presumptions in the Proof of Causation in Administrative Compensation Proceedings to Compensate for Injuries or Disease Resulting From Exposure to Hazardous Wastes

DATE: February 1, 1982

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Proposal for Use of Rebuttable Presumptions in the Proof of Causation in Administrative Compensation Proceedings to Compensate for Injuries or Disease Resulting From Exposure to Hazardous Wastes

The Study Group has previously agreed, in principle, to the use of rebuttable presumptions in proving causation in administrative proceedings to compensate for injuries and disease resulting from exposure to hazardous substances. What follows is a proposal which articulates the form and content of such presumptions, for eventual inclusion in the Study Group's final report. The purpose is to ease the claimants' burden of proof on the issue of causation, and to reduce the economic burden on claimants -- and on the system -- of the repetitive introduction of scientific and medical evidence to link particular diseases with recurring or multiple exposures of different claimants to certain designated and recognized hazardous wastes.

The proposal is followed by a memorandum that briefly analyzes the use of presumptions and provides relevant and analogous examples of presumptions to prove causation in workers' compensation systems and under under the Federal Black Lung Act.

I. Rebuttable Presumptions: Proposal

It is proposed that the Study Group's report contain recommendations for two kinds of rebuttable presumptions, the first extending merely to the issue of causation, the second going beyond proof of causation into such issues as the nature and extent of the disease or injury resulting from exposure to hazardous wastes. The first set of presumptions would be based on the proof of several elements which then give rise to presumptions of causation. The second set of presumptions would be based on the proof of the same elements as well as on previously prepared and adopted "Presumption Documents" which would be based on scientific data and would relate the exposure to certain designated hazardous wastes to their known effects in causing injury or disease. The second set of presumptions would also meet additional elements of proof.

In both instances, the same basic showing must be made. If the claimant in an administrative compensation proceeding proves

1) that the person against whom a claim is made was engaged at the time of exposure in the production, transportation or disposal of hazardous wastes; and

2) that the claimant was exposed to such hazardous waste by proximity, contact, ingestion, inhalation, or by some other form of exposure which is known to cause injury or disease; and

3) that the claimant suffered death or the kind of injury or disease which is known to result, or which can be shown to result in death or in such injury or disease, then the following rebuttable presumptions shall arise:

(a) that the exposure to the hazardous waste produced, transported or disposed by the person against whom the claim is made caused the death, injury or disease of the claimant; and

(b) that the person who produced, transported or disposed of the hazardous wastes was solely responsible for the claimant's exposure and for the resulting death, injury or disease.

In addition to these presumptions, additional presumption may apply if the federal agency authorized to administer the compensation system (which will be operated by the states subject to federal statutory requirements), has issued documents to provide evidentiary data showing that specific hazardous substances or wastes cause specific diseases or illnesses.

Such documents, hereafter referred to as Presumption Documents, shall be prepared by the agency on the basis of its accumulated information on particular hazardous wastes or substances, collected in connection with the administration of the CAA, the CWA, FIFRA, RCRA, TOSCA and CERCLA, as well as OSHA, and on the basis of evidence collected in connection with past or pending cases. It is anticipated that the Agency would produce Presumption Documents for some of the best known 20 or 30 hazardous substances on which data are available, including dioxene, chromium, kepone and PCB and that the Agency could add Presumption Documents from time to time for additional hazardous substances or wastes as their danger becomes more evident, and as data become available. A Presumption Document would be adopted following publication of the proposed document, together with all supporting data and materials set forth in full or by reference to published scientific papers, and would be adopted and promulgated following a period of comment, generally in accordance with procedures followed under the APA for informal rulemaking.

For each hazardous substance or waste, the applicable Presumption Document would set forth the following:

1. Elements of exposure, including

(a) nature of exposure, such as skin contact, ingestion, inhalation;

(b) level of exposure, stated, where appropriate, in terms of a range of exposure levels expressive of the intensity of the exposure measured, when appropriate, by ambient concentration;

(c) duration of exposure, expressed, where appropriate, in terms of a range of time periods of exposure.

2. The disease or diseases resulting from exposure, including data on:

(a) the etiology of the disease, as related to nature, level and duration of exposure;

(b) the symptoms of the disease and the available methods for its diagnosis, including direct observation, clinical and other diagnostic tests;

(c) the latency period, if any, of the disease, as related to the nature, level and duration of exposure;

(d) the prognosis for the disease, including the anticipated course of the disease, its treatment and its impact on duration in terms of disability, reduction or loss of function, and reduction of life expectancy;

(e) other impacts, including mutagenicity, teratogenicity and carcinogenicity in the progeny of the person exposed.

3. Other parameters relating to exposure, etiology and the course and consequences of the disease, including aspects of susceptibility and their variation depending on such factors as age, and sex and such other conditions as pregnancy, or disease from causes other than exposure to the hazardous wastes or substances involved.

For a description of the kind of document envisaged, see, e.g., OSHA regulation covering occupational exposure to lead, 43 Fed. Reg. No. 220 (Nov. 14, 1978), particularly the notes relating to employee monitoring. Examples are the "criteria documents" developed for pollutants under the Clean Air Act.

II. The Operation and Constitutionality of Presumptions

Many commentators on the law of evidence lament the confusion surrounding the use of the term "presumption." They attribute this confusion to the many ways in which the term has been used by the courts - one author has listed no less than eight such uses.[1] The commentators suggest, and this memorandum employs, a rather narrow use of the term. A presumption, as here used, means an evidentiary device that helps a party to meet, or prevents a party from meeting, a burden of proof, or that shifts a burden of proof.[2]

Weinstein and Berger assert that the term "should be used to mean a procedural rule which requires the existence of fact B (presumed fact) to be presumed when fact A (basic fact) is established unless and until a certain specified condition is fulfilled.[3] A presumption is not a mere inference. With an inference, fact B may be deduced from the basic fact (fact A) by ordinary rules of reasoning and logic.[4]

With a rebuttable presumption on the other hand, the existence of the presumed fact (fact B) must initially be presumed from the basic fact (fact A) because of a rule of law.[5] Thus, a rebuttable presumption might be established that fact A, that the plaintiff was exposed to a specific hazardous waste, and fact B, that he subsequently suffered from a specific disease, support the initial evidentiary submission (which could be rebutted by the defendant) that the exposure caused the disease

The lack of such a presumption would only allow the jury to infer or deduce the causal connection. The so-called "irrebuttable presumption" is really not a presumption - it is a rule of substantive law.[6]

A. Purpose of Presumptions

Courts and legislatures create presumptions to shift the burden of proof for a variety of reasons. Some are created to correct an imbalance resulting from one party's superior access to evidence.[7] Another rationale, usually implied rather than explicitly expressed is to favor certain parties or claims for social and economic reasons by giving them the benefit of a presumption, usually to restore balance between parties. The disfavored adversary is correspondingly handicapped.[8] A presumption may also be created to avoid an impasse and to reach some result, even though it is an arbitrary one. Yet another reason is that of practical convenience in the disposition of controversies.[9]

In the creation of presumptions, a reasonable judgment of probabilities is the most important consideration. This plays a strong part in the establishment of presumptions to aid the plaintiff injured by hazardous wastes to meet his burden of proof. In certain recurring fact situations, proof of fact A renders inference of fact B so probable that it is sensible and time-saving to presume the truth of fact B until the adversary disproves it.[10]

B. Operation of Presumptions in Civil Proceedings: The Morgan and Thayer (F.R.E. 301) Approaches

All commentators agree that a presumption has the procedural consequence of shifting the burden of proof. There are, however, two aspects of the burden of proof, the burden of production and the burden of persuasion. The two major approaches regarding how presumptions should operate - the Morgan approach and the Thayer "bursting bubble" approach adopted in F.R.E. 301 - differ in the manner in which they shift those two aspects of the burden of proof.

The approach favored by Professor Morgan and the Advisory Committee for the Federal Rules of Evidence would shift both the burden of production and the burden of persuasion to the opponent. The presumed fact would have to be found once the basic fact was established, unless the opponent persuaded the fact finder of its non-existence. Therefore, if a presumption existed that persons who were exposed to a particular hazardous waste and contracted a particular disease were presumed to have contracted the disease as a result of exposure, the presumed fact would be considered as established unless the opponent persuaded the trier of facts of its non-existence.[11] The 1974 Uniform Rules of Evidence and several states have adopted this approach.[12]

The Congress rejected the Morgan approach, however, and instead turned to the Thayer approach when it adopted the Federal Rules of Evidence in 1974. The Thayer or "bursting bubble" approach, embodied in F.R.E. 301, shifts only the burden of production. A presumption is overcome and disappears from a case (thus bursting the bubble) once the opponent of the presumed fact (B) introduces evidence which would support a finding of the nonexistence of the presumed fact. The burden for the opponent is not very great; he must merely have "enough evidence before the jury so that a reasonable jury could be convinced that the contrary of the presumed fact is true."[13] This would be a question of law for the judge to decide.[14]

Thus, a presumption also has the effect of forcing the opponent of the presumption to produce enough evidence to avoid a directed verdict.[15] When the presumption disappears, the court may instruct the jury that it may still infer fact B from fact A, but the court cannot instruct the jury that it may presume the existence of fact B from fact A. Under the Thayer approach, in the hypothetical discussed above, if a defendant chemical company offered enough evidence to support a verdict that the plaintiff's injury was not caused by exposure to its hazardous wastes, the court could not instruct the jury to presume that the injury was caused by the exposure.

Several commentators have criticized the Thayer approach found in F.R.E. 301 "as giving to presumptions an effect that is too 'slight and evanescent' when viewed in the light of the reasons for the creation of the rules."[16]

The Thayer approach does have one very important advantage over the Morgan approach - the corresponding jury instructions are far more concise and much simpler to understand.[17] California[18] and the 1954 Uniform Rules of Evidence[19] took a mixed approach, applying the Thayer or Morgan approach, depending upon the kind of presumption involved.[20] This mixed approach has generally been opposed because it is difficult to apply.[21]

C. Applicability of State Law in Civil Actions and Proceedings

F.R.E. 302 states, "In civil actions and proceedings, the effect of a presumption respecting a fact which is an element of a claim or defense as to which state law supplies the rule of decision is determined in accordance with State law." Rule 302 applies in diversity cases, and to any claim or issue having its source in state law. It does not apply to a federal claim or issue, even if jurisdiction is based on diversity.[22] Even where a state claim is involved, state law governs only where the presumption operates upon a substantive element of the claim or defense.[23]

D. Constitutional Limitations Upon the Creation and Effect of Presumptions

Constitutional limitations on the use of presumptions differ in civil proceedings and in criminal cases. The two situations will therefore be discussed separately.

1. Civil Proceedings

Although the Supreme Court in 1929 declared unconstitutional a Georgia statute with a Morgan-type presumption in Western & A.R.R. v. Henderson[24] (presuming liability on the part of the railroad for damages done by the running of locomotives), the Advisory Committee to the Federal Rules of Evidence believed that it was safe to ignore the Henderson case and that no constitutional prohibitions bar the adoption of a Morgan-type presumption.[25] In Henderson, the statute which established the presumption had been struck down on the basis of the "rational connection" test set forth nineteen years earlier in Mobile, J. & K.C.R. Co. v. Turnipseed[26] where a similar presumption, which utilized the Thayer approach was upheld. The Court there stated, "It is only essential that there shall be some rational connection between the fact proved and the ultimate fact presumed, and that the inference of one fact from the other shall not be so unreasonable as to be a purely arbitrary mandate."[27] Henderson and Mobile are very difficult to reconcile; they utilized different approaches in the shifting of burdens, though the Court in Henderson did not distinguish Mobile on this basis. The Advisory Committee suggests that the Henderson outcome may partly be a result of a 1929 view of economic due process.[28]

Whatever the reason, there is little concern that the Court today would strike down an arguably reasonable presumption in a civil case. The Court recently upheld certain provisions of the Black Lung Act creating presumptions that exposure to coal dust is the cause of pneumoconiosis, a respiratory ailment.[29] Still, Weinstein and Berger caution:

> The non-relevance of the "rational connection" test to civil presumptions does not mean that there are no constitutional limits to what a court or legislature may accomplish via a presumption...Greater liability may not be imposed on a defendant by means of a presumption than could otherwise be imposed in consonance with due process and equal protection requirements [e.g., a statute providing that all red-headed drivers involved in accidents are prima facie assumed to be negligent would undoubtedly be unconstitutional].[30]

2. Criminal Proceedings

The use of presumptions in criminal proceedings raises many more questions. Because of the criminal defendant's constitutional right to a jury trial and his right to require the prosecution to prove its case beyond a reasonable doubt, the freedom of courts and legislatures to establish presumptions and to define their effect is generally considered more limited in criminal than civil cases.[31] Congress did not adopt Proposed F.R.E. 303 governing presumptions in criminal cases because the subject of criminal presumptions was addressed in other bills.[32] The proposed rule (Supreme Court Standard 303),[33] promulgated by the Supreme Court, should generally be followed as an authoritative but not binding guide until legislation is adopted.[34]

Standard 303 states that the judge is not authorized to direct the jury to find a presumed fact against the accused. Furthermore, when the presumed fact establishes guilt, or is an element of the offense or negates a defense, the judge may submit the question guilt or of the existence of the presumed fact to the jury, if, but only if, a reasonable juror on the evidence as a whole, including the evidence of the basic facts, could find the guilt or the presumed fact beyond a reasonable doubt.[35]

The use of presumptions in criminal cases has been defined by Supreme Court decisions, and there have been a number of recent pronouncements in the field. In County Court of Ulster City v. Allen,[36] the Court distinguished between what it termed "permissive" presumptions (really only inferences, using the terminology set forth at page 6) and "mandatory" ones, while still accepting the rational connection test applied in earlier criminal presumptions cases.[37] With mandatory presumptions, the Court held that "since the prosecution bears the burden of establishing guilt, it may not rest its case entirely on a presumption unless the fact proved is sufficient to support the inference of guilt beyond a reasonable doubt. But [with permissive presumptions] the prosecution may rely on all of the evidence in the record to meet the reasonable doubt standard."[38]

A controversial issue concerning criminal presumptions is whether a criminal statute can shift the burden of persuasion onto the defendant through a Morgan-type presumption. In Mullaney v. Wilbur,[39] the Supreme Court struck down such a statute, which required a defendant to prove by a preponderance of the evidence that he did not have "malice aforethought" in committing a homicide. Malice aforethought had to be proved by the prosecution because it is an element of the felony of murder, and distinguishes it from manslaughter.

Two years later, however, in Patterson v. New York,[40] the Court upheld a New York law that required a defendant to prove by a preponderance of the evidence that he suffered from extreme emotional disturbance at the time of the homicide. This element would also bring a verdict of manslaughter rather than murder. The only difference between the two cases is that the Maine statute in Mullaney (an old law) utilized the devide of a presumption while the New York statute in Patterson (a more recent and carefully drafted law) shifted the burden to the defendant by means of an affirmative defense. It is difficult to understand why the Court arrived at different results on the basic question of the shifting of the burden just because the form of the procedural devices was slightly different,[41] and the law in this area remains unclear.

III. Selected Examples of Use of Presumptions in State Workers' Compensation Laws, the Federal Black Lung Act and Proposed Legislation

A. Use of Presumptions in State Workers' Compensation Laws

In general, the claimant for workers' compensation has the burden of showing by a preponderance of the evidence that his injury arose out of his employment.[42] Many states, however, use a general rebuttable presumption of compensability to shift the burden of proof to the defendant.[43] Examples of this general presumption can be found in Massachusetts[44] and New York[45] law. A broad presumption of compensability may be important where there is evidence that the claimant's own physical weakness or illness was a contributing factor to the occupational injury or disease.[46] Some federal legislation, for example, the Longshoremen and Harbor Workers' Compensation Act, also includes this broad presumption.[47]

In addition to general presumptions in favor of coverage, some states have enacted more specific presumptions. One of the most common is that an unwitnessed on-site fatal accident is presumed to be work-related.[48] Another is that a work-related disability indefinitely continues to impair the claimant's ability to work[49] unless proven otherwise by a preponderance of the evidence.[50] Less common is Mississippi's presumption that a heart attack sustained while on the job is work-related.[51] Some states have found that certain occupations often lead to specific diseases, and have based certain rebuttable presumptions on such findings -- i.e., that a heart attack sustained by a firefighter,[52] pneumoconiosis suffered by a coal miner[53] and respiratory disability experienced by a steel mill descaler or scarfer[54] are work-related.

B. The Federal Black Lung Act

The Federal Coal Mine Health and Safety Act of 1969[55] was the first federal workers' compensation statute. It provided compensation to coal miners who were totally disabled due to work-related pneumoconiosis. To be eligible for benefits, a claimant must show that he or she is a "miner", or dependent of a miner, who was "totally disabled" by "pneumoconiosis".[56] The burden of proof is upon the claimant to show he and his condition fall within the statutory definitions of these terms.[57] Since pneumoconiosis is defined as "a chronic dust disease of the lung...arising out of coal mine employment,"[58] the claimant's burden of proof implicitly includes proof of work-relatedness.

To aid the coal miner in his claim, Congress has included the following five presumptions:[59]

Subsection of statute	Initial Proof Required	Rebuttability	What is established by the presumption
§ 411(c)(1), 30 U.S.C.A. § 921(c)(1)	10 years exposure and evidence of pneumoconiosis	rebuttable	the pneumoconiosis arose out of the claimant's employment
§ 411(c)(2), 30 U.S.C.A. § 921(c)(2)	10 years exposure and death from a respirable disease	rebuttable	death was due to pneumoconiosis
§ 411(c)(3), 30 U.S.C.A. § 921(c)(3)	chest roentgenogram or biopsy showing large opacities or massive lesions in the lung (i.e., evidence of "complicated" pneumoconiosis)	irrebuttable	that total disability or death was due to pneumoconiosis
§ 411(c)(4), 30 U.S.C.A. § 921(c)(4)	15 years exposure and medical evidence of totally disabling respiratory or pulmonary impairment	rebuttable... Note: when rebutted by the Sec'y of HHS, only evidence that the disease is not pneumoconiosis, or that it did not arise from employment, is relevant	that total disability or death was due to pneumoconiosis

Subsection of statute	Initial Proof Required	Rebuttability	What is established by the presumption
§ 411(c)(5), 30 U.S.C.A. § 921(c)(5)	25 years exposure prior to 1971 and death prior to 1978	rebuttable by evidence that the miner, at the time of his death, was not partially or totally disabled due to pneumoconiosis	survivors entitled to benefits

As can be seen from the table above, the Black Lung Act established one irrebuttable and four rebuttable presumptions. The first rebuttable presumption established the work-relatedness of the pneumoconiosis. If the claimant has had less than 10 years exposure, he has the burden of proof when showing work-relatedness. The medical data which may be used by the claimant for his showing is defined by Department of Labor regulation.[60] The second rebuttable presumption is available to claimants who are dependents of a deceased miner who had 10 years exposure and a respirable disease. It establishes that the cause of death was pneumoconiosis. By combining §§ 411(c)(1) and (2), dependants of a miner with 10 years exposure and respirable disease can presumptively establish that the miner dies of pneumoconiosis arising out of his employment.

The third presumption is irrebuttable. It states that evidence of "complicated" pneumoconiosis conclusively established that the miner is now or was at the time of his death totally disabled.[61] In the absence of complicated pneumoconiosis, total disability or death due to pneumoconiosis can be presumed from evidence of 15 years exposure and a totally disabling respiratory disease. This fourth presumption is, however, rebuttable.

The fifth, rebuttable presumption was enacted in 1977 to aid the large number of dependents who had been denied benefits for the death of a miner prior to passage of the Act.

It should be noted in passing that although Congress did spell out some of the criteria for use of the presumptions, e.g., the necessary duration of exposure,[62] it did find it necessary to refer to medical criteria as set by the International Labor Organization.[63] It also explicitly left to the Secretary of Health, Education and Welfare (now Health and Human Services) the task of prescribing standards for determining whether a miner was totally disabled or died due to pneumoconiosis.[64] These standards would be used whenever a statutory presumption was not applicable.[65]

The effect of these presumptions is to ease the claimant's burden of establishing a causal link among three elements -- his employment, his disease and his disability. There is no single, simple test for pneumoconiosis,[66] nor is there a single, simple way to show that the pneumoconiosis necessarily arose out of the claimant's employment.[67] This led the authors of the House Report on the 1977 amendments (which added § 411(c)(5)) to state:

> In recognition of the historically demonstrated and exceedingly high probability of total disability (80.89 percent), and out of concern for an equally probable risk of error in the remaining cases, an objective test was established to simply provide part B benefits payments to all claimants whose claims had been denied and who could demonstrate 30 or more years of underground coal mining experience. This assertedly rational and reasonable approach was elected over discretely restructuring the eligibility determination process in order to reach such legitimate and compelling cases; a restructuring, incidentally, which would have produced a complex, manageable, and enormously costly approach to ascertaining benefits entitlements.[68]

The House Report quotes the testimony of many physicians who were of the opinion that despite the lack of a simple diagnostic test, there is no question that there is a significant correlation between pneumoconiosis and long-term exposure to coal dust.[69] One concluded that "it would seem eminently fair and humane to recognize as a matter of law that the passage of a given number of years as a coal miner is, in and of itself, reasonable evidence of a substantial burden of lung damage from coal mining and to compensate the miner accordingly."[70] The advantages of using a presumption were summed up by one doctor who had practised among coal miners:

> This [entitlement] that we are all being concerned with, in my experience, is a good screening mechanism and a good practical way of getting rid of a lot of claims that have no reason to be processed through the usual manners in which we are processing claims...[71]

The advantages were summed up even more succinctly by another doctor, who stated that the statutory presumption "will take both the doctors and the lawyers out of the black lung business, a development devoutly to be wished."[72]

The Black Lung Act was amended in 1981,[73] particularly with respect to the repeal of three out of the five presumptions, which, in the later view of Congress, had led to an excessive number of claims and vastly greater expenditures than had been anticipated.

The 1981 amendment, however, retained the first and basic rebuttable presumption that established the work-relatedness of the pneumoconiosis. A miner who showed more than ten years of exposure and evidence of pneumoconiosis would be presumed to have contracted the disease on the job. The medical data which may be used by the claimant for his showing is defined by the Department of Labor regulation.[74]

The 1981 amendment also left unchanged an irrebuttable presumption. It states that evidence of "complicated" pneumoconiosis conclusively establishes that the miner is now or was at the time of his death totally disabled.[75]

In 1975, the Supreme Court had the opportunity to pass upon the constitutionality of the presumptions set forth in §411(c)(1)-(4) of the Black Lung Act.[76] The Court categorized the Act as "involving matters of economic regulation"[77] and therefore subject to the standard articulated in Mobil, J. & K.C.R. Co. v. Turnipseed:[78]

> That a legislative presumption of one fact from evidence of another may not constitute a denial of due process of law it is only essential that there shall be some rational connection between the fact proved and the ultimate fact presumed, and that the inference of one fact from proof of another shall not be so unreasonable as to be a purely arbitrary mandate.[79]

The Court further stated that:

> The process of making the determination of rationality is, by its nature, highly empirical, and in matters not within specialized judicial competence or completely commonplace, significant weight should be accorded the capacity of Congress to amass the stuff of actual experience and cull from it.[80]

To determine if Congress' presumptions in the Black Lung Act were irrational, the Court considered the legislative history and the scientific testimony it contained. The Court concluded:

> Against this scientific background, it was not beyond Congress' authority to refer to exposure factors in establishing a presumption that throws the burden of going forward on the operators.[81]
>
> * * * * *
>
> In its "rough accomodations" (citation omitted) Congress was surely entitled to select duration of employment, to the exclusion of the degree of dust exposure and other relevant factors, as signaling the point at which the operators must come forward with evidence of the cause of pneumoconiosis or death, as the case may be. We certainly cannot say that the presumptions, by excluding other relevant factors, operate in a "purely arbitrary" manner (citation omitted)[82]

C. The Brodhead Bill

The Brodhead bill[83] was a slightly modified version of a model act proposed by Sobel in 1977[84] to establish a comprehensive administrative system for the compensation of victims of toxic substance pollution. Within this system, a variety of presumptions are used to ease the claimant's burden of showing a causal connection between his injury or disease and the acts of a specific manufacturer. These are presented in section 14, which states:

> (a) CREATION OF A REBUTTABLE PRESUMPTION
> In any proceeding for determining the causation of disease or other personal injury arising from toxic substance pollution pursuant to this Act, the rebuttable presumptions of subsection (b) arise whenever there is a showing by any party... or by the [Administrative Board for Compensation of Victims of Toxic Substance Pollution] that any manufacturer is currently or has been engaging in any toxic substance pollution and that such pollution -
> (1) travelled through an indicated pathway from the point of manufacture to the injured or diseased person; and
> (2) resulted in the etiology of the injury or disease claimed under section 13.
> Showings submitted to the ABC shall contain reasonable proof, as may be further defined by the ABC in its regulations, of the aforementioned factors necessary to give rise to the rebuttable presumptions of this section.
>
> (b) REBUTTABLE PRESUMPTIONS
> A showing under subsection (a) shall give rise to the rebuttable presumption that-
> (1) the manufacturer did produce the toxic substance in question at the time and in the manner necessary to have casued the pollution;
> (2) the toxic substance was distributed through the pathway indicated by the showing;
> (3) the toxic substance did result in the etiology attributed to the toxic substance pollution by the showing
> (4) the manufacturer was solely responsible for the toxic substance pollution in question; and

(5) the toxic substance by itself, not a mixture or synergistically formed toxic substance, comprised the polluting and injury-causing or disease-causing substance.

The effect of section 14 is merely to shift the burden of proof on these five issues to the manufacturer.[85] It is interesting to note that the claimant must make some "showing" under section 14a that the toxic substance "resulted" in the etiology (i.e., origin) of his disease. It is not clear how much proof is necessary to make this showing. Having met this burden, the claimant is entitled to a rebuttable presumption that "the toxic substance did result in the etiology" attributed to it in the section 14(a) showing.[86] The manufacturer then may rebut this presumption if a preponderance of the evidence refutes this causal link.

The effect of the Sobel-Brodhead formulation is to make the first compensation claim for each disease or toxic a "test case". Once a causal link has been established, by ajudication of a claim (or by the initiative of the ARC through its investigative arm, if in fact this occurs), the disease is classified as a "designated disease" pursuant to section 15. There are many advantages to contracting a "designated disease".

First, a claimant who complains of a "designated disease" may be certified as a "victim" under section 16 of the Act. He must show he has been exposed to a toxic substance known to result in a designated disease, and must identify the manufacturer(s) responsible. To aid him in this showing, the presumptions listed in section 14(b) may be used.

They are triggered, however, by a somewhat looser prima facie case, as set out in the "nexus requirements" of section 14(d), which consist merely of showing opportunity for exposure.[87] Thus, the task of showing an "indicated pathway" by which exposure was possible is completely removed from the claimant. Also eliminated is any need for original proof of causality. Finally, while the presumptions of section 14(b) are still rebuttable when used by a victim of a designated disease, one can assume that the manufacturer will find it more difficult to amass evidence refuting the causal link between the toxic substance, the manner and duration of exposure, and the disease experienced by the claimant.

The proposal submitted herewith seeks to accomplish the same result as the "designated disease" approach by providing for "Presumption Documents" relating particular substances to particular diseases. The Presumption Documents approach is preferred because it puts less emphasis and reliance on the first case and the manner in which it is presented.

FOOTNOTES

1. MC CORMICK, HANDBOOK ON THE LAW OF EVIDENCE 803, § 342 (Cleary ed., 2d Ed. 1972) [hereinafter cited as MC CORMICK].

2. ROTHSTEIN, EVIDENCE IN A NUTSHELL 115 (2d. Ed., 1981) [hereinafter cited as ROTHSTEIN].

3. WEINSTEIN & BERGER, WEINSTEIN'S EVIDENCE 300-1 (1980) [hereinafter cited as WEINSTEIN].

4. Id. at 300-2.

5. Id.

6. Id.

7. MC CORMICK at 806-807, § 343.

8. Id. at 808, § 343.

9. WEINSTEIN at 300-7.

10. Id.

11. Id. at 300-5.

12. ROTHSTEIN at 125.

13. WEINSTEIN at 301-28.

14. Id. at 301-13.

15. Id. at 300-3. F.R.E. 301 states:

> In all civil actions and proceedings not otherwise provided for by Act of Congress or by these rules, a presumption imposes on the party against whom it is directed the burden of going forward with the evidence, to rebut or meet the presumption, but does not shift to each party the burden of proof in the risk of nonpersuasion, which remains throughout the trial upon the party on whom it was originally cast.

16. MC CORMICK at 822, § 345.

17. The complexity of the various possibilities under the Morgan approach can be seen in ROTHSTEIN at 125-127. Rule 301 is silent as to how a jury is to be instructed when a presumption has been invoked. WEINSTEIN at 301-32. The judge's instruction is undoubtedly easier than under the Morgan approach, though. See WEINSTEIN at 301-33 to 301-34.

18. CAL. EVID. CODE §§ 601, 603-606.

19. UNIFORM RULES OF EVIDENCE, Rule 14.

20. ROTHSTEIN at 127.

21. WEINSTEIN at 300-7.

22. Id. at 302-2.

23. Id.

24. 279 U.S. 639, 49 S. Ct. 445, 73 L. Ed. 884.

25. WEINSTEIN at 301-24. The New Jersey Supreme Court Committee on Evidence reached the same result, concluding that the rational connection test appears to have little vitality today and has been under vigorous attack. Id.

26. 219 U.S. 35, 31 S. Ct. 136, 55 L. Ed. 78 (1980).

27. Id. at 43-44, 31 S. Ct. at 138, 55 L. Ed. at 80-81.

28. WEINSTEIN at 301-23.

29. Usery v. Turner Elkhorn Mining Co., 428 U.S. 1 (1975). See infra, pp. 14 - 18 for a discussion of the Black Lung Act and the upholding of the Act.

30. WEINSTEIN at 301-26.

31. ROTHSTEIN at 134-135.

32. WEINSTEIN at 303-2.

33. Supreme Court Standard 303 reads as follows:

> (a) Scope. Except as otherwise provided by Act of Congress, in criminal cases, presumptions against an accused, recognized at common law or created by statute, including statutory provisions that certain facts are prima facie evidence of other facts or guilt, are governed by this rule.
>
> (b) Submission to Jury. The judge is not authorized to direct the jury to find a presumed fact against the accused. When the presumed fact established guilt or is an element of the offense or negatives a defense, the judge may submit the question of guilt or of the existence of the presumed fact to the jury, if, but only if, a reasonable juror on the evidence as a whole, including the evidence of the basic facts, could find the guilt or the presumed fact beyond a reasonable doubt. When the presumed fact has a lesser effect, its existence may be submitted to the jury if the basic facts are supported by substantial evidence, or are otherwise established, unless the evidence as a whole negatives the existence of the presumed fact.

> (c) Instructing the Jury. Whenever the existence of a presumed fact against the accused is submitted to the jury, the judge shall give an instruction that the law declares that the jury may regard the basic facts as sufficient evidence of the presumed fact but does not require it to do so. In addition, if the presumed fact establishes guilt or is an element of the offense or negatives a defense, the judge shall instruct the jury that its existence must, on all the evidence, be proved beyond a reasonable doubt.

34. WEINSTEIN at 303-3.

35. See n. 33, supra, for the full text of Standard 303.

36. 442 U.S. 140, 99 S. Ct. 2213 (1979).

37. Id. at 99 S. Ct. 2224. The earlier cases include Turner v. United States, 396 U.S. 398, 90 S. Ct. 642 (1970), Leary v. United States, 395 U.S. 6, 89 S. Ct. 1532 (1969), United States v. Romano, 382 U.S. 136, 86 S. Ct. 279 (1965), United States v. Gainey, 380 U.S. 63, 85 S. Ct. 754 (1965), and Tot v. United States, 319 U.S. 463, 63 S. Ct. 1241 (1943).

38. 442 U.S. 140, 99 S. Ct. 2213 at 2229.

39. 421 U.S. 684, 95 S. Ct. 1881 (1975).

40. 432 U.S. 197, 97 S. Ct. 2319 (1977).

41. ROTHSTEIN at 159.

42. See, e.g., Brooks v. Industrial Commission, 24 Ariz. App. 395, 539 2d 199 (Arizona 1975); Clark v. Peabody Testing Service, 265 Ark. 489, 579 S.W. 2d 360 (Arkansas 1979); Newgard v. Industrial Commission, 58 Ill. 2d 164, 317 N.E. 2d 524 (Illinois 1974); McDowell v. Town of Clarksville, 241 N.W. 2d 904 (Iowa 1976); Lambert v. Avondale Shipyards, 292 So. 2d 352 (La. App. 1974); DeSa's Case, 3 Mass. App. 711, 323 N.E. 2d 773 (Mass. 1975); Narkeeta Inc. v. McCoy, 247 Miss. 65, 153 So. 2d 798 (Miss. 1963); Griggs v. A.B. Chance Co., 503 S.W. 2d 697 (Mo. App. 1973); Etchison v. State Acc. Ins. Fund, 16 Ore. App. 344, 518 P. 2d 199 (Oregon 1975); Lewis v. Workmen's Compensation Appeals Bd., 43 Pa. Cmwlth. 70, 401 A. 2d 863 (Pa. 1979); Mazzarella v. I.T.T. Royal Electric Division, 388 A. 2d 4 (R.I. 1978); Watkins v. Texas Employers Ins. Ass'n., 534 S.W. 2d 443 (Tex. Cir. App. 1976); Lipman v. Industrial Comm'n., 592 P. 2d 616 (Utah 1979).

43. See, e.g., Rogers Electric Co. v. Kouba, 603 P. 2d 909 (Alaska 1979) (Upholds Alaska's presumption in favor of compensability); Lawhead v. United Airlines, 59 Hawaii 551, 584 P. 2d 119 (Hawaii 1978) (Presumption of compensability especially designed to ensure compensation when the claimant exhibits an injury or disease -- here, the flu -- which may arise from a variety of causes, including the claimant's employment).

Henry v. Schenk Mechanical Contractors, Inc., 169 Ind. App. 178, 346 N.E. 616 (Ind. 1976); Lindsey v. H.A. Lott, Inc., 387 So. 2d 1091 (La. 1980) (Upholds Louisana's presumption that if an accident is preceded by good health and followed by poor health than the accident is the cause of the poor health); McClelland v. Haggerty Wrecking Co., 384 S.W. 2d 93 (Kansas City, Mo. Ct. of App. 1964) (Upholds Missouri's presumption that an on-site injury is work-related). Similar to the general presumption of coverage is West Virginia's provision that if a condition cannot be positively attributed to a cause other than the compensable injury, it is presumed to have arisen from that injury, Lenier v. State Workmen's Compensation Commissioner, 238 S.E. 2d 687 (W. Va. 1977); Workman v. State Workmen's Compensation Commissioner, 236 S.E. 2d 236 (W. Va. 1977).

44. MASS. WORKERS' COMPENSATION LAW § 7A. Note that the Massachusetts presumption applies in cases of fatal unwitnessed accidents.

45. NEW YORK WORKERS' COMPENSATION LAW § 21. For application of § 21, *see, e.g.*, Rayford v. National Union of Hospital and Nursing Home Employees, 57 A.D. 2d 975, 394 N.Y.S. 2d (N.Y. 1977); Robles v. Mosgood Theater-Saunders Realty, 53 A.D. 2d 972, 385 N.Y.S. 2d 822 (N.Y. 1976).

46. *See, e.g.*, Goff v. John Bogdan & Son, 55 A.D. 2d 806, 390 N.Y.S. 2d 261 (1967); Goddu's Case, 323 Mass. 397, 82 N.E. 2d 232 (1948).

47. *See, e.g.*, Parsons Corp. of Calif. v. Director, Office of Workers' Compensation Programs, 619 F. 2d 38 (9th Cir. 1980) (The employer has the burden of proof to show, by substantial evidence, that the injury was not work-related); Matter of District of Columbia Workmen's Compensation Act, 554 F. 2d 1075 (D.C. Cir. 1976), *cert. denied* __ U.S. ___, 97 S. Ct. 67 (1976)(presumption that injury is work-related is difficult to overcome).

48. *See, e.g.*, Downes v. Industrial Comm'n., 113 Ariz. 90, 546 P. 2d 826 (arizona 1976); Beloit Foundry v. Industrial Comm'n., 62 Ill., 2d 535, 343 N.E. 2d 504(Illinois 1976); Toomer v. City of Portland, 391 A. 2d 325 (Maine 1978); Anderson's Case, 373 Mass. 813, 370 N.E. 2d 692 (Mass. 1977); Kelley v. N.Y.C.T.A., 39 A.D. 2d 1006, 333 N.Y.S. 2d 764 (N.Y. 1972), *aff'd.* 353, N.Y.S. 2d 164 (1974); Cheldon Radio Cab Co. v. Workman's Comp. App. Bd., 10 Pa. Cmwlth. 478, 310 A. 2d 726 (Pa. 1973).

49. *See, e.g.*, Blacker v. Matlack, Inc., 349 So. 2d 916 (La. App. 1977).

50. *See, e.g.*, Amerson V. Employers Ins. Co., 105 Ga. App. 336, 124 S.E. 2d 496 (1962).

51. Russell v. Sohio Southern Pipe Lines, 236 Miss. 722, 112 So. 2d 357 (1958).

52. Mitchell v. Public Employees' Retirement Bd., 28 Ore. App. 339, 559 P. 2d 1325 (1977).

53. Mathies Coal Co. v. Workmen's Compensation Appeals Bd., 40 Pa. Cmwlth. 120, 399 A. 2d 790 (1979).

54. Armco Steel Corp. v. Workmen's Compensation Appeals Bd., 43 P. Cmwlth. 443, 402 A. 2d 563 (1979).

55. P.L. 91-172, 83 Stat. 742, 30 U.S.C. §§ 801 et seq. (1969), as amended by the Black Lung Amendments of 1972, P.L. 92-303, 2 B.R.B.A. pp. 1-51; as further amended Black Lung Benefits Reform Act of 1977, P.L. 95-239 and Black Lung Benefits Revenue Act of 1977, P.L. 95-277, Vol. A.B.R.B.S. pp. 1-63. (hereinafter known in toto as "the Black Lung Act.").

56. 20 C.F.R. Ch. VI, subchapter B, §§ 725.202(b), 725.212(3), 725.218, 725.222.

57. Barnette v. Califano, 585 F. 2d 698 (4th Cir. 1987) (no benefits awarded because burden of proof not met by the claimant). See also Fleming v. Clinchfield Coal Co., 7 B.R.B.S. 302 (1977).

58. The Black Lung Act § 402, 30 U.S.C.A. § 902(b) (Supp. 1981).

59. This table is paraphrased from the table presented in LARSON, THE LAW OF WORKMEN'S COMPENSATION § 411.95(a) at pp. 7-527, 7-528.

60. 20 C.F.R. § 718.203(c), 43 Fed. Reg. 17725 (4/25/78).

61. The constitutionality of this irrebuttable presumption was explicitly upheld in Usery v. Turner Elkhorn Mining Co., 428 U.S. 1, 24-27 (1975). The Court also upheld the constitutionality of the other, rebuttable presumptions. A rational relationship test was applied. Id. at 23.

62. §§ 411(c)(1), (2), (4) and (5), 30 U.S.C.A. §§ 921(c)(1), (2), (4) and (5).

63. § 411(c)(3), 30 U.S.C.A. § 921(c)(3) states:

> If a miner is suffering or suffered from a chronic dust disease of the lung which (a) when diagnosed by chest roentgenogram, yields one or more large opacities (greater than one centimeter in diameter) and would be classified in category A, B, or C in the International Classification of Radiographs of the Pneumoconiosis by the International Labor Organization...

64. The Black Lung Act § 411, 30 U.S.C.A. § 921(b).

65. See text accompanying note 60, supra.

66. Black Lung Benefits Reform Act of 1977, H.R. 95-151 at 1.

67. *See*, *e.g.*, *id.* at 6 (testimony of Dr. Daniel Fine). *See also id.* at 7 (testimony of Dr. Edgar Dessen).

68. *Id.* at 5

69. *See*, *e.g.*, the testimony of Dr. Daniel Fine, *id.* at 6, Dr. Lowell Martin, *id.* at 6, Dr. Murrary Hunter, *id.* at 6-7, Dr. Edgar Dessen, *id.* at 7.

70. Testimony of Dr. Daniel Fine, *id.* at 6.

71. Testimony of Dr. Lowell Martin, *id.*

72. Testimony of Dr. Murray Hunter, *id.* at 6-7

73. The Black Lung Benefits Revenue Act of 1981, P.L. 97-119 (to be codified at 26 U.S.C. §9500) was signed into law on December 29, 1981. It made two major changes in the existing program. First, it altered the tax structure and increased the size of the fund. Second, it repealed some of the presumptions in the earlier Black Lung Act. The 1981 amendments transferred provisions of the fund to the Internal Revenue Code, conforming these provisions to those of other similar trust funds. A temporary increase in the excise tax on coal to \$1.00 per ton of underground coal and to \$0.50 per ton on surface-mined coal was mandated, with a limitation of the tax to 4% of the per ton sales price. The amendments also mandated an increase in the interest rate which "responsible operators" must pay on interim benefits that the fund advances so the interest rate approximates existing money market conditions. Furthermore, the 1981 amendments transferred to the fund the liability for the approximately 10,200 claims previously denied and subsequently reopened and approved under the standards of the 1977 amendments. Eliminated from the program is the obligation to pay retroactive lump sum benefits when an initial determination of liability is made, but is contested by the operator.
    Eligibility standards were tightened by the elimination of the 15-year presumption for pulmonary or respiratory impairments, elimination of the 10-year respiratory disease presumption, and elimination of the presumption applied to miners who had worked for 25 years or more in the mines, for purposes of survivors' benefits.
    For a discussion of the Black Lung Act and the adequacy of its compensation, *see* Dept. of Labor, *An Interim Report to Congress on Occupational Diseases* 85-92 (1980). *See also* Lopatto, "Amendments Fight Excesses of Black Lung Statutes," *Legal Times*, March 22, 1982.

74. 20 C.F.R. §718.203(c), 43 Fed. Reg. 17725 (4/25/78).

75. The constitutionality of this irrebuttable presumption was explicitly upheld in *Usery v. Turner Elkhorn Mining Co.*, 428 U.S. 1, 24-27 (1975). The Court also upheld the constitutionality of the other rebuttable presumptions. A rational relationship test was applied. *Id.* at 23.

76. Usery v. Turner Elkhorn Mining Co., 428 U.S. 1 (1975).

77. Id. at 28.

78. 219 U.S. 35 (1910).

79. Id. at 43.

80. Usery v. Turner Elkhorn Mining Co., 428 U.S. 1, 28, quoting from United States v. Gainey, 380 U.S. 63, 67 (1965).

81. Id. at 28-29.

82. Id. at 29-30.

83. H.R. 9616 (95th Congress, 1977).

84. Soble, "A Proposal for the Administrative Compensation of Victims of Toxic Substances Pollution: A Model Act," 14 HARVARD J. LEGIS. 683 (1977).

85. See, H.R. 9616 § 14(c).

86. H.R. 9616 § 14(b)(3).

87. H.R. 9616 § 14(d) states:

> For any claim for certification as a victim pursuant to Section 16, the only showing required of the person filing a claim, necessary to give rise to the rebuttable presumptions of (b), shall be-(1) the opportunity for exposure to the toxic substance within the known geographic scope of the toxic substance pollution if definable under Section 15; (2) the opportunity for such exposure over a sufficient time span, if defined under Section 15; and (3) an injury or disease pursuant to Section 13.

N.

MULTIPLE PARTIES IN ACTIONS FOR MASS TOXIC TORTS: CLASS ACTION SUITS AND ALTERNATIVE DEVICES FOR JOINDER AND COOPERATION OF PARTIES

Appendix N-1

SUBJECT: Multiple Parties in Actions for Mass Toxic Torts: Class Action Suits and Alternative Devices for Joinder and Cooperation of Parties

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TO: Superfund §301(e) Study Group

FROM: Frank P. Grad, Reporter

RE: Multiple Parties In Actions for Mass Toxic Torts: Class Action Suits and Alternative Devices for Joinder and Cooperation of Parties

DATE: November 6, 1981

I. Overview

Throughout the Vietnam war, American soldiers were exposed to toxic defoliants, often grouped together in name as "Agent Orange". By December 1980, 3400 plaintiffs in 167 suits against a variety of defendants and based on varying theories of liability and causation were before the U.S. District Court for the Eastern District of New York.[1] The case presented complex questions concerning choice-of-law (plaintiffs came from all 50 states and Australia[2]), choice-of-defendant (numerous chemical companies with differing degrees of involvement were named[3]), causation (individualized patterns of exposure complicated by dispute whether defoliants could ever cause the injuries claimed[4]), adequacy of representation (many thousands of potential claimants had refrained from bringing suit pending decision of the class action motion[5]) and modern tort jurisprudence (for example, enterprise liability theory and responsibility for latent effects[6]). Despite these complications, the court certified a class action,[7] stating:

> [T]he court has carefully and humbly considered the management problems presented by an action of this magnitude and complexity, and concluded that great as they are, the difficulties likely to be encoun-

> tered by managing these actions as a class action are significantly outweighed by the truly overwhelming problems that would attend any other management device chosen.[8]

Use of the class action device in such a complicated case might imply that it is widely employed for adjudication of mass torts. In fact, precisely the opposite is true. Though class actions have been used for mass accident[9] and pollution[10] cases, this is the exception and not the rule.[11] In fact, several prominent authorities have maintained that mass torts are generally inappropriate for class action treatment. The Federal Rules Advisory Committee suggested that a class suit for personal injury claims would degenerate into separate law suits:

> A 'mass accident resulting in injuries to numerous persons is ordinarily not appropriate for a class action because of the likelihood that significant questions, not only of damages, but of liability and defenses to liability, would be present, affecting the individuals in different ways. In these circumstances, an action conducted nominally as a class action would degenerate in practice into multiple lawsuits separately tried.[12]

Other commentators, however, including Professors Moore, Wright and Miller, maintain that class actions are particularly appropriate for disposing of the large number of cases arising from a single disaster.[13]

It is impossible to draw a bright line between those mass tort cases which are appropriate for class action treatment and those which are not. Judge Merhige tried to present "the paradigm situation in which such treatment would be appropriate" in Causey v. Pan American World Airways, Inc.[14] He suggested these criteria:

> (1) the class action is limited to the issue of liability; (2) the class members support the action; and (3) the choice of law problems are minimized by the accident occurring and/or substantially all plaintiffs residing within the same jurisdiction. Even under such circumstances, however, the action, to be maintainable as a class action, must meet the requirement of Rule 23(b)(3), Fed. R. Civ. P., that the 'class action [be] superior t superior to other available methods for the fair and efficient adjudication of the controversy'."[15]

However, while this approach tackles some of the complications which can make class action unmanageable, it omits many others. For example, injuries sustained through extended exposure, perhaps even through various kinds of exposure, may require individualized attention for issues of causation and liability.[16] Multiple defendants may have independently acted alike, creating a class of similarly injured plaintiffs who cannot accurately identify which defendant is liable to which plaintiffs.[17] The personal injuries sustained may have been so severe that many plaintiffs may want independent representation, making adequacy of representation a serious question.[18] Finally, the greatest obstacle to any attempt to outline the perfect, streamlined case appropriate for class action is the very presence of all these undesirable characteristics which led Judge Pratt to certify the Agent Orange cases as a class action.[19]

In sum, only a case-by-case analysis can serve to segregate those mass tort cases for which class action treatment is desirable. Occasionally, hostility towards class action has been expressed by the federal bench[20] and by trial lawyers.[21] This should not stand in the way of giving fair consideration to such actions in mass tort cases.

Judge Weinstein addressed this prejudice in his talk before the Judicial Conference of the Fifth Judicial Circuit,

> It seems to be that this matter touches on the credibility of our judicial system. Either we are committed to make reasonable efforts to provide a forum for theadjudication of disputes involving all our citizens--including those deprived of human rights, consumers who overpay for products because of antitrust violations, and investors who are victimized by misleading information--or we are not. There are those who will not ignore the irony of courts ready to imprison a man who steals some goods in interstate commerce, while unwilling to grant a civil remedy against a corporation, which has benefited to the extent of many millions of dollars from collusive, illegal pricing of goods.
>
> When the organization of a modern society, such as ours, affords the possibility of illegal behavior, accompanied by widespread diffuse consequences, some procedural means should exist to remedy or at least deter that conduct....
>
> [Class actions] have been supported by their proponents as a labor and timesaving device, permitting numerous legal disputes to be handled at one time. This is an overstatement. On balance, there is a loss of court time. Matters which would not have been litigated can now be brought to court. Actions are more complex and there is additional responsibility on the courts to protect absent class members. Nevertheless, I think that the price is worth paying....[23]
>
> Most judges would agree that the class actions serve their intended function when they accomplish either of two purposes: when they prevent a multiplicity of suits or when they expedite the disposition of otherwise unredressable legally cognizable grievances.[24]

II. Prerequisites to a Class Action

A. Rule 23(a)

Federal class actions must meet all the requirements of federal rule 23(a) and, in addition, fit within one of the three categories of rule 23(b). The requirements of 23(a) are that the class is so numerous, joinder is impracticable, that there are questions of law and fact common to the class, that the claims and defenses of the named plaintiffs are typical of those of the class and that the representative parties will fairly and adequately represent the class' interest.[26]

1. Joinder

Impracticability of joinder is a prerequisite of all class actions,[27] but can hardly be considered a significant obstacle. Impossibility is not required[28]--a showing of difficulty or inconvenience is often sufficient.[29] Numbers alone do not determine impracticability of joinder[30] and, in fact, the geographical distribution of a proposed class can be of considerable importance.[31] In fact, classes with as few as 25 members have been recognized to avoid multiple trials of the same issues.[32] Since most toxic torts affect hundreds of potential plaintiffs, impracticability of joinder should not become a serious impediment to class action treatment.

2. Typicality of Claims and Defenses

The claims of the representative parties must be similar or identical to those of the class. For mass accident cases, this is rarely a problem. Usually, the factual issues will be identical, and all plaintiffs are likely to have sustained injuries of a similar nature as a result of the one event.[35] Toxic torts may present a different problem. Exposure may have occurred in various ways, e.g., through drinking water, physical contact or inhalation of particulate matter.[36] In addition, the injuries sustained may range from skin rashes to cancer. The proof necessary to show a causal connection between exposure to the toxic substance and the various types of injury may vary sufficiently to make typicality a problem. If the class of plaintiffs is very large, however, the court may seek a selection of named plaintiffs whose injuries and manner of exposure reflect the range of the class as a whole.[37]

Adequacy of Representation

Rule 23(a)(4) requires that the named plaintiffs fairly and adequately protect the interests of absent class members. Because those class members who do not "opt out" of a (b)(3) action, and those included in a (b)(1) or (b)(2) action, may be bound by the judgment, such adequacy or representation is a due process requirement.[38] The court must be convinced the suit is not collusive and that the named plaintiffs have a sufficient stake, resources and counsel to vigorously prosecute the case.[39] Resolution of this issue seems no different in mass accident or toxic tort cases than in any other proposed class action.[40]

B. Rule 23(b) - Types of Class Actions

A federal class action must meet not only the four requirements of 23(a), but must also fall within one of the three categories of class action presented in 23(b).[41] Rule 23(b)(1) permits class actions to avoid creating a risk of incompatible standards of conduct for parties opposing the class[42] or of judgments for some plaintiffs which as a practical matter may dispose of others' claims.[43] In cases in which plaintiffs seek equitable or declaratory relief from a defendant or defendants who refuse to act on grounds generally applicable to the class, again, a class action is appropriate under Rule 23(b)(2). However, there are reasons why Rules 23(b)(1) and (2) are generally not appropriate for mass tort cases. Most frequently used is Rule 23(b)(3), which permits class actions when common questions predominate and the device is superior to all other methods for adjudicating the rights of all plaintiffs.

1. Rule 23(b)(1)

As previously noted, Rule 23(b)(1) permits class actions whenever separate actions are likely to prejudice either the proposed class or the defendant(s). Subsection (b)(1)(A) is designed to protect the interest of the party opposing the class. Thus, the risk of findings of incompatible standards of conduct for the defendant is not likely to justify class action unless it is the defendant who seeks it.[44] In addition, the possibility of the award of money damages to some plaintiffs and not others is not considered "incompatible standards of conduct"--on this issue there is no disagreement.[45] Since most toxic tort actions will focus heavily on damages (cessation of the noxious activity being more easily accomplished by citizen suits under air, water or land pollution legislation), subsection 23(b)(1)(A) is unlikely to apply.

Subsection (b)(1)(B) focuses on possible prejudice to plaintiffs who are not party to an early action. The Central District of California found this persuasive in its class certification of air-crash victims in Petition of Gabel.[46] It stated:

> ...[I]t is possible that adjudications with respect to individual suits by individual members of the class would, in case judgment went against that plaintiff, as a practical matter, be dispositive of the rights of other members of the class not party to the individual adjudication, so as to substantially impair or impede the ability of other members to protect their interests, by application of the doctrine of res judicata.[47]

The Gabel court, however, was wrong in its fears. Exoneration of one or all defendants in an earlier action does not foreclose later suits by different plaintiffs--to do so would deny later plaintiffs their day in court. Binding them to the earlier judgment though they were not represented therein denies later plaintiffs due process of law. As a practical matter, the stare decisis effect of an earlier decision may in fact create significant pressure on potential palintiffs to settle on less than favorable terms. It is Rule 23(b)(3), however, which is specifically directed at such situations, in which class action is clearly superior.

The "paradigm Rule 23(b)(1)(B) case is one in which there are multiple claimants to a limited fund...and there is a risk that if litigants are allowed to proceed on an individual basis, those who sue first will deplete the fund and leave nothing for latecomers."[48] Both the drafters of the rule and courts using it have adopted this position, and the Gabel case stands as an anomaly.[49]

2. Rule 23(b)(2)

An action may be maintained as a class action under Rule 23(b)(2) if "the party opposing the class has acted or refused to act on grounds generally applicable to the class, thereby making appropriate final injunctive relief or corresponding declaratory relief with respect to the class as a whole..."[50] The drafters of the rule expressed this view of its reach:

> This subdivision is intended to reach situations where a party has taken action or refused to take action with respect to a class, and final relief of an injunctive nature or of a corresponding declaratory nature, settling the legality of the behavior with respect to class as a whole, is appropriate. Declaratory relief "corresponds" to injunctive relief or serves as a basis for later injunctive relief. The subdivision does not extend to cases in which the appropriate final relief relates exclusively or predominantly to money damages.[51]

Rule 23(b)(2) has traditionally been used in the civil rights field, particularly to secure injunctive relief from discrimination.[52] It is not necessarily limited to this field, however, since consumer actions to prevent illegal business practices may also fit this model.[53]

Toxic tort cases are likely to involve both injunctive relief and damages whenever the noxious activity has not ceased. The provision is clearly inappropriate for purely monetary actions. Even the formation of a fund for future compensation of exposure victims does not fall within the bounds of §23(b)(2).[54] In fact, even if an action involves both injunctive and monetary relief, §23(b)(2) will not be invoked unless injunctive relief is the primary aim of the litigation.[55] Thus, at best, §23(b)(2) certification will be available for only some toxic tort cases. Even for those, the court may choose to certify the class for the equity claim only, leaving damage claims to individual actions,[56] and thereby significantly undercutting the effectiveness of the class action.

3. Rule 23(b)(3)

The most common class certification for mass tort cases is under Rule 23(b)(3), which requires a predominance of common questions of law and fact and a demonstrated superiority of class action as compared to other litigation devices. An expanded discussion of 23(b)(3) is presented in Part III, *infra*.

C. Initial Obstacles to Bringing a Class Action

As a threshold matter, the Court must determine whether plaintiffs have met their burden of establishing the propriety of a class action.[57] This determination must be restricted to inquiries concerning the satisfaction or non-satisfaction of the requirements of Rule 23.[58] Inquiry into the merits of the action, or into issues to reduce the size of the class to more manageable numbers, may be tempting but is not permitted.[59]

If class certification is to be granted, notice must be given to potential class members. "Rule 23, and possibly constitutional due process, ordinarily requires that notices in class actions to absent class members whose addfess is ascertainable to be given by first class mail."[60] This is not a problem for small classes of affluent representatives, but it can deter otherwise reasonable class actions for many small-claim, large-class cases.

After eight years of litigation, the question whether the named plaintiffs must advance the cost of this notice was finally resolved in 1974 in the famous case of Eisen v. Carlisle and Jacquelin.[61] The Supreme Court there determined that plaintiffs must supply funds for prepayment of notice to all potential claimants.[62] This is a "major disaster for advocates of maintenance of small claim federal question class actions. No longer, simply because he couldn't afford it, could a representative party of modest means maintain an otherwise suitable and desirable class action."[63] This criticism holds equally true for toxic tort cases.

Although notice problems can vary widely with the nature of the action,[64] there is no reason to believe toxic tort cases will fit conveniently into any one category. If the injury has a long latency period, e.g., cancer, victims of exposure may have long ago moved to other cities or states. While notice to remaining residents may be effectively and inexpensively accomplished through broadcast and print media,[65] location and notification of others may be prohibitively time-consuming and expensive. One solution to this problem was proposed by JudgePratt in the Agent Orange case. He proposed a mix of direct mail for those on Veteran's Administration mailing lists (presumably at VA expense, as a service for which the VA was formed), news media notice and any other notice which counsel might suggest.[66] Perhaps, as news of injuries due to hazardous waste exposure percolates through society, media might volunteer space for such legal notices as a public service.[67]

Finally, jurisdictional requirements may provide an obstacle to compiling a complete class. If claims could be aggregated in diversity cases for the purpose of meeting the requisite amount of more than $10,000 in controversy,[68] even small claims could be adjudicated with a class action. In fact, without a class action, many of these claims might never get litigated since legal costs might rise out of proportion to any anticipated judgment or settlement especially when defendant is an industrial concern with large resources to meet a legal challenge. Great success in aggregation was achieved by plaintiffs litigating at the court of appeals level[69] until the Supreme Court decided, in 1969, that each named plaintiff must independently claim more than $10,000 in damages.[70] In 1974, the Supreme Court further restricted use of class actions for small claim diversity actions when it held that each member of the class must assert a claim of $10,000.[71] The district court in Zahn v. International Peper Co. also rejected plaintiff's claim that the court had ancillary jurisdiction over non-qualifying members of the class by virtue of its jurisdiction over the qualifying named members.[72] With such stiff jurisdictional requirements, class action diversity suits are severely restricted. Although in toxic tort cases many plaintiffs may legitimately claim for more than $10,000 in damages, those who cannot claim such damages would not be permitted to benefit from the class action. But the virtues with smaller claims are most likely to be determined from bringing individual claims in light of the huge legal expenses. While this will certainly reduce the burden on the courts, it denies a remedy to many aggrieved parties. These victims may benefit to some extent from the effect of a favorable class action judgment, but ultimately they may be left uncompensated.

One answer to this difficulty lies in legislative action to amend the jurisdictional amount necessary in Rule 23 actions. Short of this, some courts have grappled with the question of meeting the $10,000 jurisdictional amount by including injuries that cannot be expressed in money damages alone. This approach was extensively discussed by Judge Herman in *Boring v. Medusa Portland Cement Co.*[73] Plaintiffs there were residents of York County, Pennsylvania, who brought action for damages and injunction against Delaware and Ohio corporations which allegedly released large amounts of contamination into the atmosphere over York, Pennsylvania. The case presented 221 plaintiffs with claims ranging from $100 to $34,000.[74] Only three of the named plaintiffs had claims greater than $10,000 and the court was convinced that other unnamed plaintiffs had failed to meet the jurisdictional amount.[75] The court acknowledged, and plaintiffs impliedly conceded, that if the case were solely for damages, the court would be compelled to dismiss all but the three qualifying plaintiffs.[76] However, the question of jurisdiction was complicated by a prayer for injunction as well as damages:

> The presence of an unspecified prayer for an injunction, the plaintiffs assert, brings into control the cases of *Illinois v. City of Milwaukee*, 406 U.S. 91, 92 S. Ct. 1385, 31 L.Ed. 2d 712 (1972) and *Pa. R.R. Co. v. City of Girard*, 210 F.2d 437 (6th Cir. 1954).
>
> The apparent theory behind such a conclusion was expressed in *Pa. R.R. Co. v. City of Girard*. The court found the measure of the jurisdictional amount in an injunction to be "the value of the right sought to be protected," not the actual damages thus far inflicted. The plaintiffs urge the applicability of *City of Girard*

which found jurisdiction based on the right to be protected in the injunction, despite lack of jurisdictional amount in the damage action. "Jurisdiction under Title 28, Section 1331, depends 'not alone upon the pecuniary damage resulting from the acts complained of, but also upon the value of the rights, which plaintiff seeks to have protected. Since the suit is for injunction as well as for damages, the test is the value of the controversy...." Id. at 439.

The City of Milwaukee was exclusively an abatement action brought by the State of Illinois against the City of Milwaukee and others in an attempt to halt the defendants' alleged pollution of Lake Michigan. The unanimous court rejected any claim of original exclusive jurisdiction based on 28 U.S.C. §1251, and Art. III §2 cl.2 of the United States Constitution. Instead, the court based jurisdiction on 28 U.S.C. §1331(a) concluding that the matter of interstate waters created a sufficient basis upon which to find a federal question. But §1331, like §1332, nevertheless requires satisfaction of the jurisdictional amount. The court dispensed with that hurdle by noting:

"The considerable interests involved in the purity of interstate waters would seem to put beyond question the jurisdictional amount...." 406 U.S., at 98.

The instant case, of course, does not arise under the laws of the United States, but rather diversity of citizenship. In either case, however, the plaintiffs must satisfy the jurisdictional amount in excess of $10,000. Therefore, the plaintiffs argue, Illinois v. City of Milwaukee is authority for the proposition that a claim of environmental pollution per se satisfied the jurisdictional amount prerequisite of §1332 in an injunction action.

By combining City of Milwaukee's observation that abatement of pollution is per se worth $10,000 with the rationale enunciated in City of Girard, the plaintiffs conclude that the court has jurisdiction over the entire controversy.

Although neither City of Girard nor City of Milwaukee was a class action, the plaintiffs nevertheless seem to be arguing that Zahn is not relevant whatsoever to a class action which seeks both damages and an injunction to enjoin pollution.

> This court does not find the language of *City of Milwaukee* entirely persuasive in establishing the jurisdictional amount in the instant case. *City of Milweukee* was exclusively an injunction action involving a single body of polluted water, a single plaintiff and but one defendant. The court in the *City of Milwaukee* did no more than value Lake Michigan in excess of $10,000. It did not conclude that everyone using the lake had a claim valued in excess of the jurisdictional amount.[77]

Bichele v. Norfolk and Western Railway, Co.,[78] is another environmental pollution case in which a court grappled with the question of minimum damage claims. Plaintiffs in that case sought to enjoin coal storage causing excessive coal dust air pollution. Damage claims accompanied the request for equitable relief. The *Biechele* court encountered the *Snyder v. Harris*[79] requirement, that each named plaintiff claim more than $10,000, as an obstacle. Accepting the *City of Girard* rationale, the court stated that "the right to each member of the class to live in an environment free from excessive coal dust and conversely, the right of defendant to operate its coal loading facility are both in excess of $10,000."[80] The procedural stance of *Biechele*[81] may relegate its statement to *dicta*.

In sum, it is likely that many toxic tort cases will involve injuries for which damage claims in excess of $10,000 will be common. Unfortunately, in cases with lesser claims, the procedural obstacles found by the Supreme Court may prevent use of the class action device.[82]

III. The 23(b)(3) Class Action

As noted above, 23(b)(3) class actions are only permitted when common questions of law and fact predominate and the class action is superior to other devices.[83] Other devices may include joinder, consolidation and transfer, coordinated pre-trial, use of offensive collateral estoppel and test cases, voluntary coordination within the negligence bar, and settlement. Rule 23(b)(3) states that factors to be considered when determining whether to permit a class action include the interest plaintiffs may have in individual control of each action, existence of related litigation pending, the desirability of concentrating litigation in a single forum and the difficulties with managing a class action.[84]

A. Common Questions of Law and Fact

The predominance requirement of Rule 23(b)(3) can present a significant obstacle in mass tort cases. In fact, it was this issue which led the Rule's drafters explicitly to discourage use of 23(b)(3) for mass accidents.[85] However, most mass torts can meet the requirement if common trial is restricted to issues of liability, if choice of law rules do not require application of different laws to individual members of the class and if questions of causation do not vary with the individual affected.

1. Class Action Restricted to Liability Issue

In mass accidents, e.g., airplane crashes, the factual and legal issues surrounding defendant's liability are often the same for all plaintiffs.[86] Under such circumstances, individual determinations of liability constitute great waste and duplication of effort. Damage questions, though, will be individual to each plaintiff. The solution to this problem lies in 23(c)(4)[87], which allows a class action to be maintained on some issue while those remaining are tried separately.

Split trials are also permitted under *Fed. R. Civ. P.* 42(b). Despite the unquestioned economy of court resources achieved[88] when time is not spent proving damages for a case in which liability is not found, courts have resisted split trials in negligence cases. Without proof of damages, juries are less likely to find liability[89]. Thus, some have argued that split trials undercut the right to jury trial.[90] Despite these problems, split trials are very useful, indeed necessary, for mass accident suits. In fact, juries will often infer the nature of the injuries sustained[91], and consider these when determining liability. A finding of liability would also provide a great incentive for defendant to settle, thus accomplishing two judicial aims -- the amicable settlement of differences and the saving of court time and resources.

Several courts have employed the split trial successfully. For example, in *Hernandez v. Motor Vessel Skyward*[92], the Court tried only the issue of defendant's alleged negligence in food preparation as a class action. All other theories of liability -- breach of contract, implied warranty of fitness and negligence in medical care -- were tried separately. In *American Trading and Production Corp. v. Fischbach and Moore*[93] the court tried liability for a massive fire separately from damage claims. The Court said that class treatment was appropriate because identical evidence would be required to establish the origin of the fire and the parties responsible. Similarly, the court in *Petition of Gabel*[94] held that class action was suitable to determine the cause of the airplane crash but not to determine damages.

Other courts have declined to use the class action device combined with split trial. In *Hobbs v. Northeast Airlines, Inc.*[95], the Court felt that the injuries sustained in an air crash were so severe that each plaintiff might well want to press individualized suits, using various theories of liability and pre-trial or trial tactics. Similarly, litigation for a school bus crash in *Daye v. Commonwealth of Pennsylvania* did not go forward as a class action because the court took special note of the Advisory Committee's comments to Rule 23.[97]

Environmental cases present special problems with the use of class actions for determining only liability. The variety of damages sustained convinced the court in *Boring v. Medusa Portland Cement Co.*[98] that different evidence would be needed from each plaintiff to establish liability and prove injury. Damages in that case ran from aesthetic discomfort to property damage to personal injury, allegedly sustained by exposure to emissions from two out-of-state plants. "[E]ach resident, motorist or business is in a different proximity to the plants than other class members. In effect, *each* plaintiff would have to separately establish what mixture of pollution caused him damage depending on the wind, location of the factories, etc. It is inconceivable that a single ratio of pollution by the two defendants could apply uniformly throughout the class. The plaintiffs would have to individually establish the liability of each defendant, then the respective roles of the defendants vis-a-vis each other."[99] [emphasis original]

Other courts, considering the same problem, have followed a different analysis, stressing the number of common questions concerning liability which might be appropriate for separate class action adjudication. Ouellette v. International Paper Co.[100] concerned air air and water pollution in and around Lake Champlain, Vermont. The court there felt that fact questions concerning the amount, quality and distribution of defendant's discharges were common to the class and crucial to determination of defendant's liability.[101] In addition, certain defenses would be common to all plaintiffs.[102] The Ouellette Court went further, however, and addressed the question of class action litigation in the environmental field generally:

> Defendant's contentions also go to the heart of an emerging and important question concerning the propriety of class action as a procedure for redressing environmental injury. This question has lurked in the background of the few decisions we have found involving claims similar to those of the instant case, but it has not been addressed directly, so far as we have been able to determine. In cases of this kind, the allegedly harmful discharges are released into the environment in a concentrated state at a source. They disperse thereafter in a manner dictated by natural forces, and their effect, if any, on the surrounding environment is necessarily a function of proximity to the source and prevailing natural conditions. Because of this, no two property owners at random points in an affected area are likely to urge the same pattern of dispersion. Defendant points this

out and urges from it that plaintiffs' claims are therefore atypical and that plaintiffs are unable because of their individual interests to protect fairly and adequately the interests of the class. This assertion reduces itself inexorably to the proposition that a class action may never proceed against an alleged polluter; defendant's logic would almost invariably disqualify each would-be member from representing the proposed class. Therefore, before proceeding with our analysis of subdivision (b)(3), we feel constrained to respond to defendant's assertion and examine the general proposition to which it leads.

The Advisory Committee felt that some categories of cases, mass accidents for instance, would be inappropriate for class action because of the likelihood of individual questions of liability and defenses to liability. Id. at 103. The same might be true of certain kinds of private damage antitrust cases. Id. We find the Committee's inclusive language more descriptive of the kind of case presently before us than its exclusive language. We have not found a case to suggest the contrary. We conclude that as a genre, the instant case is not inappropriate for class treatment and we reject the implication of defendant's argument. As a theoretical matter, we find, for instance that it would be desirable from the standpoint of consistency and convenience to develop in a single proceeding the quantum, quality and dispersion pattern of a source's discharges. Time, effort and expense might be saved by such a procedure, even though all issues may not be resolvable at once. In separate trials, the questions of fact respecting defendant's discharges and their dispersion might be resolved inconsistently, contrary to sense and logic. Similar inconsistency could arise with separately determined questions of liability or defenses to liability, and this would be undesirable as a matter of "uniformity of decision as to persons similarly situated." Id. In our opinion, the type of suit represented by this case is not the sort envisioned by the Advisory Committee as generally inappropriate for class treatment under subdivision (b)(3). See also Weinstein, Some Reflections on the "Abusiveness" of Class Actions, 58 F.R.D. 299, 305 (suggesting the propriety of class action in the area of environmental control).[103]

In line with the Ouellette approach are Pruitt v. Allied Chemical Corp.[104] and the Agent Orange litigation.[105] The Pruitt court found that although common questions did not predominate throughout the class, subclasses could be formed which would present common theories of liability and anticipate common defenses.[106] In addition, the court was convinced that separate trial on the liability question could entirely eliminate the need for damage mini-trials.[107] If defendant was adjudged liable, the Pruitt court was persuaded that settlement was more likely than further litigation, agreeing with Judge Frankle in Shelter Realty Corp. v. Allied Maintenance Corp.,[108] who said:

> [T]here is reason to believe that civilized litigants and attorneys find ways to settle individual claims where the questions of general application go against defendants. But, of course, that hope or possibility may not be realized. In the rare cases where this is so, it is more fitting that the work of adjudication be done than that the multiplicity of claimants be blocked at the threshold by denial of the class-action procedure designed to give them an effective day in court.[109]

The Agent Orange litigation presented an especially appropriate opportunity for separate trial of liability. All defendants were required to manufacture the offending defoliant to precise federal specifications. Thus, an initial defense, common to all claims and defendants, could be tried. If the "government contract defense"[110] failed, the court intended to have a second common trial addressing "liability questions such as negligence, product liability, and general causation, where a jury will be able to hear all the evidence relating to the development, manufacture and use of "Agent Orange".[111] Requiring the jury to return special verdicts on the questions would allow their easy use in future trials of liability if it developed that individual patterns of exposure were significant to a finding of liability vis-a-vis each serviceman.[112]

2. Choice of Law Rule

Choice of law rules were, until recently, susceptible of easy statement -- the law of the state in which the Tort occurred was applied to the case.[113] With the rise of Babcock v. Jackson[114] and the modern Restatement (Second)[115] this simple rule has given way to complex balancing process. For some mass accidents, the variety of state laws which may apply to various plaintiffs can cause significant difficulties. If relevant state laws differ, a case may fail to present common questions of law. A preliminary inquiry into complex choice-of-law issues may be lengthy enough to convince a court that class action is not superior to other devices. Uncertainty of applicable law may inhibit settlement when maximum damages recoverable at trial depends on resolution of the conflicts question.[116]

"These considerations are of more than academic interest because state laws on accident liability and damages do differ. As to liability, they differ in plaintiff's burden of proof, the use of certain defenses, the availability of some theories of recovery, such as strict liability, and of some doctrines which aid the plaintiff, such as last clear chance and res ipsa loquitur. In wrongful death actions, the elements of damages vary with the theory on which the action was brought. More importantly, a minority of jurisdictions limit the maximum amount of damages recoverable for wrongful death."[117]

Choice of law problems are unlikely, despite these difficulties, to present a significant obstacle in toxic tort litigation. State interest in regulation of toxics use and storage on its land is likely to sufficiently justify use of that State's law on issues of liability. A likely exception to this might occur when an out-of-state corporation is responsible for the local concentration of toxics, whether through on-site use or disposal, or through dispersion across state lines. In such a case, the state of incorporation might also wish to see its laws applied. In either case, however, only one state law is likely to be applied to the liability issue. Damages might be apportioned to each plaintiff in accordance with the laws of his or her state of residence, but this can be accomplished through special trials for damages.[118] Special verdicts on the liability issue can aid in this process.[119]

3. Problems of Causation

A particularly thorny issue for all toxic tort cases is the question of proximate cause. The uncertain state of medical knowledge, particularly with respect to cancer, can create serious problems for plaintiffs wishing to prove a direct link between exposure and a specific resultant injury. Where exposure is long-term and due to a variety of mediums--e.g., inhalation, ingestion, physical contact--questions of causation (and therefore liability) may hinge on individual facts. It was precisely this problem which convinced the court in Yandle v. PPG Industries[120] that the suit was not appropriate for class action. In that case, workers exposed to asbestos in the workplace sought to bring a class action against nine defendants, including their employer. Concluding that common questions of law and fact did not predominate, the Court said:

> As noted previously, the Pittsburgh Corning Plant was in operation in Tyler for a ten year period, during which some 570 persons were employed for different periods of time. These employees worked in various positions at the plant, and some were exposed to greater concentrations of asbestos dust than were others. Of these employees, it is only natural that some may have had occupational diseases when they entered their employment for Pittsburgh Corning. There are other issues that will be peculiar to each plaintiff and will predominate in this case, such as: The employee's knowledge and appreciation of the danger of breathing asbestos dust and further, whether the employee was given a respirator and whether he used it or refused to use it. Additionally, as to the defendant, Pittsburgh Corning, the only persons who could maintain an action would be the survivors of employees who were employed by that company. These are individual questions peculiar to each potential class member.[121]

However, as previously noted, the Agent Orange litigation, which includes issues of proximate cause far exceeding these in complexity, will still proceed as a class action on general questions of liability and defendant's conduct. Individual trials using special verdicts from this adjudication may be employed when examining individual questions of proximate cause.[122] Questions of proximate cause may be thorny, but need not generically disqualify environmental or toxic tort litigation from class action certification.[123]

B. Superiority of the Class Action Device

The superiority requirement of Rule 23(b)(3) can pose the greatest challenge to plaintiffs seeking class action certification. Numerous alternative devices, outlined in the introduction to this section, are available. Presented below is a discussion of the advantages and disadvantages of each of these alternatives.

1. Joinder

Impracticability of Rule 20 joinder is a prerequisite to all class action suits[124] and is a commonly mentioned alternative.[125] However, since classes with as few as 25 members have been certified,[126] sheer numbers should not prove an obstacle. Requiring each plaintiff to show the commonality of interest necessary for joinder[127] requires the same effort as proving the predominance of common questions for class action,[128] and represents no saving of judicial resources. The only true advantage to joinder lies in avoiding the costs of notice.

However, the saving in notice costs is often outweighed by the disadvantages of joinder. The need for complete diversity between plaintiffs and defendant(s) may preclude the joinder of some potential plaintiffs. Where the defendant(s) is not a corporation, numerous plaintiffs can make the selection of proper venue quite difficult. If some plaintiffs may not join because their presence creates jurisdictional or venue defects, they will be compelled to file suit separately -- perhaps even in a different court. The duplication of judicial effort is clearly a waste.

In addition, without the notice required in Rule 23 action, many potential plaintiffs may remain unaware of the on-going litigation.

Again, separate suits will result in a net loss of judicial time and create the risk of inconsistent judgments.

Finally, for those plaintiffs who cannot or know not to join, separate litigation is not the only option. Failure to litigate at all may be their choice. Even with the stare decisis advantages of an earlier, favorable judgment and the possible advantages of offensive collateral estoppel, many plaintiffs may find the costs of litigation exceed any expected recovery. Failure to press their litigation claims is "a result which would obviously conserve judicial resources, but would do little to enhance justice".[129] In the interests of finally and completely determining the rights and liabilities of all parties to toxic tort litigation, class action seems to afford the best opportunity for efficient and equitable disposition.

2. Transfer and Consolidation

Federal Rule 42(a) permits a joint trial or consolidation of any or all issues in actions involving common questions of law or fact, provided all cases are pending before the same court.[130] The numerous common questions in mass accident cases often lead to consolidation in federal courts.[131] Split trials, with liability issues consolidated and damage claims handled singly, can reduce complexity and preserve the advantages of consolidation.[132] When actions are originally brought in several districts, however, consolidation must be preceded by transfer via 28 U.S.C. §1404(a). Since 1404(a) limits transfers to districts where the action "might have been brought" initially, however, jurisdiction over the defendant and venue for all plaintiffs may become a problem. In contrast, class actions only require that named plaintiffs be appropriate to venue and to maintenance of diversity jurisdiction.

Another difficulty with consolidation is shared by use of joinder--lack of notice to all potential claimants. Again, without this notice, future actions are not forestalled, and another drain on court resources is possible. Pending actions in other districts may proceed without knowledge of the transfer and consolidation, resulting in duplication of effort.[133]

Even if all actions are already in the same district and most or all of the potential claimants are aware of the action, consolidation may still be an inferior option. "[C]lass actions are a better means of binding cases together. Federal rule 42(a) provides that cases may be either jointly tried or consolidated, suggesting that consolidation means something more than joint trial--that the cases are merged into one by consolidation. Case law holds to the contrary, however, that consolidated actions preserve their separate identities and that the parties retain all the rights they would have had, had the actions been tried separately. Whereas a class action would "consolidate" all claims arising from a mass accident, excepting those plaintiffs who withdrew, 42(a) consolidation merely provides for a trial binding only those present and only for trial."[134]

3. Transfer for Coordinated Pretrial

28 U.S.C. §1407 authorizes the transfer of related civil actions to one district for coordinated pretrial proceedings. Unlike §1404,[135]

transfer can be to any federal district court. Coordinated pretrial eliminates duplication of the extensive discovery work necessary for mass accident cases. For toxic tort cases, this is particularly attractive, since records of the industry's understanding of the dangers its activities posed during the period it engaged in those activities will be very important in all cases not bases on a strict liability theory.

Pretrial coordination, however, is not as efficient as class action. Judge Pratt considered and discarded coordinated pretrial for the Agent Orange litigation for the following reasons:

> This technique would require separate trials of each action in the transferor courts, a technique that would be repetitious and wasteful with respect to the issues that are common to all actions. Although testimony of key expert witnesses might be made available to each of the transferor courts through use of videotape so that the need for those witnesses to personally appear at each trial would thereby be eliminated, the opportunity to cross-examine the experts on special problems that relate to the individual plaintiffs would still be lost. The greatest disadvantage of this method is that it would place unnecessary burdens on each of the transferor judges, each of whom would have to struggle with identical legal and factual issues, and it would thus fail to reach the level of judicial efficiency and economy that MDL procedures were designed to achieve.

4. Offensive Use of Collateral Estoppel

Collateral estoppel is asserted offensively when a prior judgment against the defendant is held to be conclusive as to issues also raised in a later suit between a similarly situated plaintiff and the same defendant. This use of collateral estoppel was first made possible in 1942 with the case of Bernhard v. Bank of America,[136] which ended the doctrine of mutuality of estoppel as used in California. As long as a defendant is aware that an adverse judgment may bind him in numerous future suits, no real unfairness is present. Unfortunately, offensive use of collateral estoppel encourages claimants to sit back and wait for a favorable judgment before bringing suit. This places an unfair burden on the initial plaintiff, who must bear the cost of discovery and the uncertainty of litigation. It also subjects defendant to numerous suits, as successive plaintiffs attempt to achieve a favorable judgment. If earlier litigation results in judgment for defendant judicial goals of efficiency and finality can be defeated by use of this doctrine.

Furthermore, offensive collateral estoppel has received at best a mixed reaction from courts trying mass accident cases.[137] The reasons for this mixed reception are potential full faith and credit problems created when a judgment arising in a state recognizing offensive collateral estoppel is pleaded as conclusive in another state not accepting the doctrine, or vice versa.[138] Because use of this doctrine is at best chancy, it does not yet seem a superior option to class action litigation.

5. Test Cases

The use of test cases is a subset of the general doctrine of offensive collateral estoppel. In essence, a test case is a private consensual class action in which a single plaintiff tries the issue of liability on behalf of the entire class. A favorable judgment for plaintiff binds the defendant as to all members of the class, while an adverse judgment has no more than a stare decisis effect.[139]

The test case doctrine was used by the Third Circuit in Katz v. Carte Blanche Corp. (1974)[140] as a predecessor to a class action suit if plaintiff prevailed. The Katz case involved an extremely large number of proposed class members, each with an exceedingly small claim as credit card holders under the Truth in Lending Act. Defendant expressed fear that giving the notice required in a class action suit might damage its business.

This use of the test case doctrine is quite unorthodox, however. "The Katz decision seems contrary to paragraph (c)(1) of rule 23 which requires a class determination as soon as practicable. Under ordinary circumstances, in the absence of consent by the defendant, a determination of the merits of a plaintiff's claim prior to ruling on a motion for class determination precludes the district court from certifying a class action. Peritz v. Liberty Loan Corporation, 523 F.2d 349 (7th Cir. 1975). An illustration of the unintended collateral consequences of a determination of the merits before class certification is found in Roberts v. American Airlines, Inc., 526 F.2d 757 (7th Cir. 1975), in which res judicata effect of a judgment in favor of the defendant was denied in respect to unnamed class members in subsequent actions brought by the unnamed class members."[141]

Use of the test case unaccompanied by a follow-up class action fails to achieve any greater efficiency or certainty than a class action suit. It also fails to provide the advantages of class action--a single determination of plaintiffs' claims and defendants' defenses, mandatory notice, assurance of adequate representation and supervision of settlement procedures. Test cases may, however, be useful for those classes which encompass large numbers of plaintiffs failing to meet the $10,000 jurisdictional minimum for federal suit. A favorable decision for the first plaintiff could be used by other claimants as res judicata in state court proceedings.

6. Voluntary Coordination of the Negligence Bar

Perhaps the most noted example of cooperation among parties to a mass tort case can be found in the litigation surrounding the Dalkon Shield, an intrauterine device for birth control.[142] The Dalkon Shield Group was formed in 1974, and nearly 500 plaintiffs participated.[143] Other plaintiffs' groups have been formed for litigation against seven birth control pill manufacturers, against Chevrolet for motor mount failure and for the MER/29 drug cases.[144]

Members of the Dalkon Shield Group paid $200 each to receive "a background package of data containing sample pleadings, answered interrogations, medical articles, and governmental publications. They also received periodic newsletters covering trials, settlements, new medical and administrative developments, group dealings with defense counsel, and the availability of experts."[145] Although trials are separate and theories of liability vary widely, discovery was coordinated so that only one set of depositions was necessary. Material developed in the coordinated discovery was shared by all group members, including those joining late, and costs were apportioned among all plaintiffs.[146]

Voluntary coordination is certainly less efficient than class action, but does provide a device for plaintiffs failing to achieve class action certification. It is also a desirable option for cases complicated by choice-of-law problems, a lack of plaintiffs injured to a degree valued at $10,000, highly individualized proximate cause questions or lack of named plaintiffs sufficiently funded to manage the cost of notice.[147]

C. Other Factors Pertinent to a Rule 23(b)(3) Action

Rule 23(b)(3) sets forth criteria to aid a court's task of evaluating the relative merits of a class action as opposed to other forms of litigation. These criteria include an individual's interest in controlling his own litigation, the desirability of concentrating litigation in a single forum, the extent and nature of related litigation and difficulties with managing a class action. While none of these are definitive, together they are a useful guide.

1. The Individual's Interest in Controlling His Litigation

If each plaintiff has a large claim, the drafters of Rule 23 thought class action may be less appropriate.[148] When claims also have a high psychological value, as e.g., for the death of a family member, this factor may become even more important.[149] If plaintiffs are scattering among typically low- and high-award districts, control of one's own litigation will certainly be attractive to high-award districts claimants.

This factor need not be definitive, however, because any plaintiff may withdraw from the class action to prosecute his claim separately.[150] Such plaintiffs will at least retain the stare decisis, and, perhaps, res judicata benefits of a favorable judgment in the class action. In addition, separate litigation of the damages, handled in accordance with the laws of plaintiffs residence,[151] will remove the incentive for high claim or high award district plaintiffs to withdraw.

2. The Extent and Nature of Related Pending Litigation

The existence of well-developed parallel lawsuits will certainly make other options--particularly transfer and consolidation--more attractive than class action. Such suits do not, however, preclude maintenance of a class action. If related actions are transferred to a single district, a class action motion may be maintained there. The transferee court in a §1407 pretrial transfer may also hear class action motions.[152] Finally, if numerous claimants are not yet involved in the related litigation, a class action may be maintained for them.[153]

3. The Desirability of Concentrating the Litigation in a Single Forum

Whenever evidence, plaintiffs' or defendants' is primarily located in a single district, concentrating litigation in that forum is clearly the superior choice. This is most often the case in mass accidents, whether they result from an aircrash or exposure to a hazardous dumpsite. The forum taking charge may find it is under an unusual burden to manage such extensive litigation, but this is still far superior to spreading the burden of duplicative discovery and trial among numerous courts.

4. Class Action Management Difficulties

Unlike cases involving securities fraud or consumer deception, mass accident cases are likely to involve a manageable number of plaintiffs who are relatively easy to identify. For torts involving long-term exposure, location of now relocated victims may be trying, but it is likely at least a majority are still in the same vicinity as when originally exposed.

Difficulties specific to toxic torts, however, may require innovative solutions. The variety of methods of exposure may require the extensive use of subclasses.[154] Separate trials for liability and damages are likely.[155] If damages vary widely, a special master may be appointed to determine compensation.[156] Close supervision of settlement proceedings may be necessary. Compared to the costs of separate trials, in both money and time, such management techniques are certainly worth the extra effort.

D. State Class Action Suits

Most large-scale wrongs are interstate in nature and so most class actions are eligible for federal court. Given a choice of state and federal forums, counsel is most likely to opt for the more advantageous federal forum, primarily because it provides fewer jurisdictional and procedural limitations. In addition, the federal bench has more experience and consistent precedent for use of class actions.

For those actions which proceed at the state level, no general rule may be drawn. State class action rules are characterized by diversity, reflecting the entire history of F.R.C.P. 23. State rules are modelled on the Federal Equity Rules at common law, the Field Code of 1848 and the 1938 Federal Rule 23, as well as the 1966 amended F.R.C.P. 23. Some states still have no statutory provision and continue to certify classes on a case-by-case basis as in common law.

1. Advantages and Limitations of State Class Actions

Rule 23 as amended in 1966 is more liberal than any of its precursors. Therefore, for those states still adhering to an earlier federal model, a federal forum is usually superior. Even when the state law reflects modern Rule 23, federal forums offer jurisdictional and procedural advantages. However, failure to meet federal jurisdictional requirements or strategic considerations may lead one to state court.

From the plaintiff's point of view, federal courts have many advantages. The liberal 1966 Rule 23 governs a federal action, even when a more restrictive rule applies in that state's courts.[157] State courts, on the other hand, adhere to a variety of rules, many of which are more restrictive.[158] Federal courts have wider jurisdiction and venue, while state courts suffer from territorial limits on jurisdiction.[159] Federal courts provide broader service of process and wider pretrial discovery than many state courts.[160] In addition, federal judges generally have more experience and clearer precedent to guide them through class action litigation than state judges[161] especially since 1966 and the amendment of Rule 23.[162] A wider range of substantive rights may be available under federal law, especially in fields where federal courts have exclusive jurisdiction.[163] Finally, attorney's fees are awarded more liberally in federal court, both because they are expressly allowed more often in federal than state legislation, and because there is a trend in the federal bench to exercise such equity powers in appropriate cases.[164] The federal courts do however have significant jurisdictional limitations which may force plaintiffs to seek a state forum.[165]

Strategical considerations may militate in favor of state or federal courts. For example, it has been asserted that where local public opinion strongly supports the action, or the issues involved are primarily local and a local jury is likely to be sympathetic, resort to state courts may be preferable.[166] Where determination and distribution of damages is likely to involve local authorities, the cooperation between local state judges and these officials can facilitate plaintiffs' recovery.[167] However, federal jury awards are usually larger and federal juries are somewhat more isolated from adverse local opinion.[168] Federal courts may be more receptive to the class action and may have the experience and personnel, e.g., special masters, to properly manage a class action.[169] Federal judges are also more remote from local political pressures when relief is sought against an important local industry.[170] Finally, when multidistrict litigation transfer is likely to occur with a federal forum, the most likely transferee district, it may be preferable to file initially in federal court, lest a state action fail or be stayed to coordinate with the other federal actions.[171]

2. Types of State Class Action Rules

State class action rules typically are modelled after federal law. However, not all states have tracked the evolution of F.R.C.P. 23. and thus state rules now reflect all its precursors. Historically, federal class actions evolved through four stages: (1) they were permitted in equity or at common law on a case-by-case basis; (2) they were first permitted by statute in New York Field Code of 1848, as amended in 1849; (3) they were more liberally permitted with the 1938 adoption of Federal Rule of Civil Procedure 23; and, (4) they were even more liberally permitted with the 1966 amendments to F.R.C.P. 23. As of October 1980, 31 states have adopted or modified the 1966 Rule 23.[172] In addition, amended Rule 23 has been judicially utilized as a model in California (which has a Field Code Provision) and is directly applicable in the District of Columbia, Puerto Rico and the Virgin Islands.[173] The 1938 Federal Rule 23 is used verbatim or as a model by ten states[174] and the Field Code is retained by six states.[175] In three states there is still no statutory class procedure and class actions are only permitted to the extent authorized by state common law.[176]

The obvious disadvantage to class action suits in states with no statutory procedure is the great uncertainty surrounding certification.[177] States following the Field Code suffer from its historic deficiencies.

The most serious defect arises from the language of the 1849 amendment to the section requiring joinder of parties "united in interest". The drafters added to the joinder section, "and when the question is one of a common or general interest of many persons...one or more may sue or defend for the benefit of the whole."[178] Analysis of judicial interpretations of this phrase reveals that "they represent an expression of the ill-defined concept of privity.... In the absence of that connection, class actions usually fail unless the subject matter of the controversy is a limited fund or specific property, or the relief sought is common to the class in the sense that satisfaction of the individual claims before the court also automatically satisfies the claims of all other class members".[179] As a result, class actions in Field Code states can be severely restricted.

Rule 23 as written in 1938 divided class actions into three categories: (1) "true" when the right was joint, common or derivative; (2) "hybrid" when the right was joint and a specific property was involved; and (3) "spurious" when the right was several and common questions of law and fact predominated. While true class actions bound all members and hybrid class actions bound all members with respect to the res, spurious class actions were scarcely more than liberal joinders binding only the parties present before the court. Because the 1938 Rule 23 failed to adequately distinguish among these categories, thereby causing confusion concerning the binding effect of the judgment, federal forums are preferable to state courts following old Rule 23.[180]

Even where the choice is between a federal court and a state court following the modern rule, the plaintiff is apt to choose the former. Federal courts offer more experience, clearer precedent and more liberal pre-trial procedures. The Uniform Class Action rule, adopted in 1976 by the National Conference of Commissioners on Uniform State Laws, attempts to meet these problems. So far, however, the Uniform Rule has been adopted by only one state[181] and is still subject to much academic debate.[182] For the moment, it is generally true that federal courts provide a better environment for class action suits that can meet the jurisdictional requirements.

IV. Conclusion

Class action suits seem best adapted procedurally to provide effective remedies for large groups of victims of exposure to hazardous wastes. Unfortunately, this option also presents many difficulties, including the cost of notice; the need to form a class of plaintiffs whose damages exceed $10,000; the individual variations on the question of proximate cause and, thus, liability; the highly individualized question of damages; the possibility of choice-of-law questions; and, finally, the Supreme Court history of opposition to the use of federal class actions for small claim recoveries. One available solution is to amend Rule 23 or multi-district litigation procedures to reflect the needs of toxic tort and hazardous waste victims.

FOOTNOTES

*This memorandum is based on research by Alta Charo, Columbia '82, research assistant, L.D.R.F.

1. In re "Agent Orange" Product Liability Litigation, M.D.L. No. 381. 506 F. Supp. 762 (E.D.N.Y. 1980).

2. *Id.* at 783.

3. *Id.*

4. *Id.*

5. *Id.*

6. *Id.*

7. *Id.* at 785.

8. *Id.* at 791.

9. *See*, *e.g.*, American Trading and Production Company v. Fischbach and Moore, 47 F.R.D. 155 (N.D. Ill. 1969) (massive fire): Petition of Gabel, 350 F. Supp. 624 (C.D. Cal. 1972) (airplane crash); Hernandez v. The Motor Vessel Skyward, 61 F.R.D. 558 (S.D. Fla. 1974) (food poisoning aboard ship); Marchesi v. Eastern Airlines, Inc., 68 F.R.D. 500 (E.D.N.Y. 1975) (airplane crash).

10. *See, e.g.*, Biechele v. Norfolk & Western Railway, 309 F. Supp. 354 (N.D. Ohio 1969) (coal dust air pollution); Pruitt v. Allied Chemical Corporation, 85 F.R.D. 100 (E.D. Va. 1980) (toxic pollution of Chesapeake Bay); Ouellette v. International Paper Company, 86 F.R.D. 476 (D. Ver. 1980) (Pollution of Lake Champlain).

11. *See*, *e.g.*, Hobbs v. Northeast Airlines, Inc., 50 F.R.D. 76 (E.D. Pa. 1970) (airplane crash); Boring v. Medusa Portland Cement Co., 63 F.R.D. 78 (M.D. Pa. 1974) (air pollution abatement); Daye v. Commonwealth of Pennsylvania, 344 F. Supp. 1337 (E.D. Pa. 1972), aff'd, 483 F.2d 294 (3rd Cir. 1973) (school bus crash); Yandle v. PPG Industries, 65 F.R.D. 566 (E.D. Tx. 1974) (exposure to workplace asbestos); Causey v. Pan American World Airways, 66 F.R.D. 392 (E.D. Va. 1975) (airplane crash); McDonnell Douglas Corp. v. U.S. District Court for the Central District of California, 523 F.2d 1083 (9th Cir. 1975) *cert. denied sub nom.*, Flanagan v. McDonnell Douglas Corp., 425 U.S. 911 (1976).

12. Fed. R. Civ. P. 23; Advisory Comm. Note, 39 F.R.D. 69, 103 (1966) See also, e.g., Weinstein, Revision of Procedure: Some Problems in Class Actions, 9 Buff. L. Rev. 433, 469 (1960): "There are, however, serious objections to using class actions where an accident has resulted in injury to many persons. The economics of the contingent fee in tort litigation -- and settlement practices of public insurers and self-insurers -- today insures effective legal service for any injured person who wants a lawyer. Permitting a class action would create an unseemly rush to bring the first case and provide, through notice to all injured persons, a kind of legalized ambulance chasing. As a matter of practice, disasters usually do not result in a large number of separate trials. Cases are referred to specialist attorneys who represent a number of parties, actions are consolidated, and settlement negotiations dispose of most claims. Where insurance coverage and assets of the defendant are less than prospective recoveries, the pressure to cooperate in settlement negotiations is too great to resist. Both the plaintiff's bar and the defendant's bar in the negligence field are so closely knit that, as a practical matter, they can informally provide most of the advantages of class actions."

13. "[A] mass accident seems peculiarly appropriate for class treatment. Indeed the question of liability to all those injured in a plane or train crash is more likely to be uniform than that of liability for manipulation of the price of securities: with the introduction of such large-scale public transportation facilities as the "jumbo jets," the ability to determine liability for an accident in one proceeding will be even more desirable." 3B J. Moore, Federal Practice ¶23.45[3] at 23-811 n. 35 (2d ed. 1974). "The argument for class action treatment is particularly strong in cases arising out of mass disasters such as an airplane crash in which there is little chance of individual defenses being presented." 7A C. Wright and A. Miller, Federal Practice and Procedure: Civil §1783, at 117 (1972). For some softening of his earlier stance, see Weinstein, Some Reflections on the "Abusiveness" of Class Actions, 58 F.R.D. 299 (1972).

14. 66 F.R.D. 392, 397 (E.D. Va. 1975).

15. Id.

16. See, e.g., Yandle v. PPG Industries, 65 F.R.D. 566 (E.D. Tx. 1974) (exposure to workplace asbestos).

17. See, e.g., In re "Agent Orange" Product Liability Litigation, M.D.L. No. 381, 506 F. Supp. 762 (E.D.N.Y. 1980).

18. See, e.g., Hobbs v. Northeast Airlines, Inc., 50 F.R.D. 76, 79 (E.D. Pa. 1970).

19. *See supra*, note 7.

20. *See*, *e.g.*, Snyder v. Harris, 394 U.S. 332 (1969); Zahn v. International Paper Co., 414 U.S. 291 (1973); Eisen v. Carlisle and Jacquelin, 391 F.2d 555 (2d Cir. 1968), later app., 479 F.2d 1005 (2d Cir. 1973), vacated, 417 U.S. 156 (1974).

21. *See* Weinstein, *supra* note 13, at 306.

22. *Id.* at 305.

23. *Id.* at 300

24. *Id.*

25. The federal class action rule is Fed. R. Civ. P. 23.
Class Actions:

(a) Prerequisites to a Class Action. One or more of a class may sue or be sued as representative parties on behalf of all only if (1) the class is so numerous that joinder of all members is impracticable, (2) there are questions of law or fact common to the class, (3) the claims or defenses of the representative parties are typical of the claims or defenses of the class, and (4) the representative parties will fairly and adequately protect the interests of the class.

(b) Class Action Maintainable. An action may be maintained as a class action if the prerequisites of subdivision (a) are satisfied and in addition:

(1) the prosecution of separate actions by or against individual members of the class would create a risk of

(A) inconsistent or varying adjudications with respect to individual members of the class which would establish incompatible standards of conduct for the party opposing the class, or

(B) adjudications with respect to individual members of the class which would as a practical matter be dispositive of the interests of the other members not parties to the adjudications or substantially impair or impede their ability to protect their interests; or

(2) the party opposing the class has acted or refused to act on grounds generally applicable to the class, thereby making appropriate final injunctive relief or corresponding declaratory relief with respect to the class as a whole; or

(3) the court finds that the questions of law or fact common to the members of the class predominate over any questions affecting only individual members, and that a class action is superior to other available methods for the fair and efficient adjudication of the controversy. The matters pertinent to the findings include: (A) the interest of members of the class in individually controlling the prosecution or defense of separate actions; (B) the extent and nature of any litigation concerning the controversy already commenced by or against members of the class; (C) the desirability of concentrating litigation of the claims in the particular forum;

(D) the difficulties likely to be encountered in the management of a class action.

(c) Determination by Order Whether Class Action to be Maintained; Notice; Judgement; Actions Conducted Partially as Class Actions.

(1) As soon as practicable after the commencement of an action brought as a class action, the court shall determine by order whether it is to be so maintained. An order under this subdivision may be conditional, and may be altered or amended before the decision on the merits.

(2) In any class action maintained under subdivision (b)(3), the court shall direct to the members of the class the best notice practicable under the circumstances, including individual notice to all members who can be identified through reasonable effort. The notice shall advise each member that (A) the court will exclude him from the class if he so requests by a specified date; (B) the judgement, whether favorable or not, will include all members who do not request exclusion; and (C) any member who does not request exclusion may, if he desires, enter an appearance through his counsel.

(3) The judgement in an action maintained as a class action under subdivision (b)(1) or (b)(2), whether or not favorable to the class, shall include and describe those whom the court finds to be members of the class. The judgement in an action maintained as a class action under subdivision (b)(3), whether or not favorable to the class, shall include and specify or describe those to whom the notice provided in subdivision (c)(2) was directed, and who have not requested exclusion, and whom the court finds to be members of the class.

(4) When appropriate (A) an action may be brought or maintained as a class action with respect to particular issues, or (B) a class may be divided into subclasses and each subclass treated as a class, and the provisions of this rule shall then be construed and applied accordingly.

(d) Orders in Conduct of Actions. In the conduct of actions to which this rule applies, the court may make appropriate orders: (1) determining the course of proceedings or prescribing measures to prevent undue repetition or complication in the presentation of evidence or argument; (2) requiring, for the protection of the members of the class or otherwise for the fair conduct of the action, that notice be given in such manner as the court may direct to some or all of the members of any step in the action, or of the proposed extent of the judgement, or of the opportunity of members to signify whether they consider the representation fair and adequate, to intervene and present claims or defenses, or otherwise to come into the action; (3) imposing conditions on the representative parties or on intervenors; (4) requiring that the pleadings be amended to eliminate therefrom allegations as to representation of absent persons, and that the action proceed accordingly; (5) dealing with similar procedural matters. The orders may be combined with an order under Rule 16, and may be altered or amended as may be desirable from time to time.

(e) Dismissal or Compromise. A class action shall not be dismissed or compromised without the approval of the court, and notice of the proposed dismissal or compromise shall be given to all members of the class in such manner as the court directs.
As amended Feb. 28, 1966, eff. July 1, 1966.

26. Fed. R. Civ. P. 23(a).

27. Fed. R. Civ. P. 23(a)(1). For the relationship between joinder in the "superiority" context and the requirement of impracticality of joinder, see Siegel v. Chicken Delight, Inc., 271 F. Supp. 722, 725 (N.D. Cal. 1967).

28. Wright and Miller, supra note 13, §72 at 308.

29. See, e.g., Vernon Rockler and Co. v. Graphic Enterprises, Inc., 52 F.R.D. 335, 339 (D. Minn. 1971).

30. See, e.g., EWH v. Monarch Wine Co., 73 F.R.D. 131 (E.D.N.Y. 1977).

31. See, e.g., Glover v. McMurray, 361 F. Supp. 235, 241 (S.D.N.Y.), rev'd and remanded on other grounds, 487 F.2d 403 (2d Cir. 1973), vacated and remanded on other grounds, 417 U.S. 963 (1974).

32. Philadelphia Electric Co. v. Anaconda American Brass Co., 43 F.R.D. 452, 463 (E.D. Pa. 1968).

33. Fed. R. Civ. P. 23(b).

34. Fed. R. Civ. P. 42(b).

35. See, Note, Mass Accident Class Actions, 60 Cal. L. Rev. 1615, 1619 (1972).

36. See, e.g., Yandle v. PPG Industries, 65 F.R.D. 566 (E.D. Tx. 1974); Boring v. Medusa Portland Cement Co., 63 F.R.D. 78 (M.D. Pa. 1974).

37. "Although the named plaintiffs for the purposes of the class action are yet to be designated, the court is satisfied that our of the extremely large pool available representative plaintiffs can be named who will present claims typical of those of the class." In re "Agent Orange" Product Liability Litigation, M.D.L. No. 381, 506 F. Supp. 762, 787 (E.D.N.Y. 1980).

38. Hansberry v. Lee, 311 U.S. 32, 41-42 (1940).

39. *See*, Note, *Mass Accident Class Actions*, *supra* note 35, at 1619.

40. *See*, *e.g.*, American Trading and Production Corp. v. Fischbach and Moore, Inc., 47 F.R.D. 155, 156 (N.D. Ill. 1969) (holding twelve mass accident victims properly represented class of 1200). *But c.f.*, Pruitt v. Allied Chemical Corp., 85 F.R.D. 100, 106 (E.D. Va. 1980) (court certified subclasses of Maryland and Virginia watermen, noting traditional animosity between the groups and expressing doubt whether named plaintiffs, overwhelmingly Virginians, would fairly represent Marylanders' interests

41. *See supra* note 25.

42. *Fed. R. Civ. P.* 23(b)(1)(A).

43. *Fed. R. Civ. P.* 23(b)(1)(B).

44. Chmielski v. City Products Corp., 71 F.R.D. 118, 155 (W.D. Mo. 1976). *See also* Pruitt v. Allied Chemical Corp., 85 F.R.D. 100, 107 (E.D. Va. 1980).

45. *See*, *e.g.*, Pruitt v. Allied Chemical Corp., 85 F.R.D. 100, 107 (E.D. Va. 1980); In re "Agent Orange" Product Liability Litige No. 381, 506 F. Supp. 762, 789 (E.D.N.Y. 1980); McDonnall Douglas Corp. v. U.S. District Court for the Central District of California, 523 F.2d 1083, 1086 (9th Cir. 1975), *cert. denied sub nom.*; Flanagan v. McDonnell Douglas Corp., 425 U.S. 911 (1976); Causey v. Pan American World Airways. 66 F.R.D. 392, 398 (E.D. Va. 1975). "The risk of paying [money] damages to some and not others is not what the rulemakers intended by the words 'incompatible standards of conduct' In re "Agent Orange," *supra* at 789, quoting from A. Miller, *An Overview of Federal Class Actions: Past, Present and Future* at 43 (1977).

46. 350 F. Supp. 624, 630 (C.D. Cal

47. *Id.*

48. In re "Agent Orange" Product Liability Litigation, M.D.L. No. 381, 506 F. Supp. 762, 789 (E.D.N.Y. 1980), quoting A. Miller, *An Overview of Federal Class Actions: Past, Present and Future* at 45 (1977).

49. *See* Administrative Committee's Note, Rule 23, 39 F.R.D. 69, 101 (1966). *See also* Pruitt v. Allied Chemical Corp., 85 F.R.D. 100, 106-07 (E.D. Va. 1980); McDonnell Douglas Corp. v. U.S. District Court for the Central District of California, 523 F.2d 1083 (9th Cir. 1975), *cert. denied sub nom.*, Flanagan v. McDonnell Douglas Corp., 425 U.S. 911 (1976).
It should be noted that on June 25, 1981, Judge Williams of the

District Court for the Northern District of California conditionally certified the Dalkon Shield litigation as a class action even though no plaintiff had requested this. In re Northern District of California "Dalkon Shield" IUD Products Liability Litigation, No. C 80-2213 SW (June 25, 1981). Judge Williams founded the certification on Fed. R. Civ. P. 23(b)(1)(B), stating that "(t)his court specifically finds that separate actions inescapably will alter the substance of the rights of others having similar claims....It is clear that the amount of punitive damages sought far exceeds the available net worth of the company. This fact poses two very real threats if actions on this issue continue on an individual basis: 1) The company will be unable to respond to claims for punitive damages due to actual or constructive bankruptcy; or 2) At some point in the future, courts could rule that the aggregate sum already assessed against the defendant company in punitive damages was such that as a matter of law the company had been sufficiently punished and therefore punitive damage claims would be dismissed as a matter of law....In either event, the limited fund available to satisfy all claims for punitive damages merits certification of a nationwide class under Rule 23(b)(1)(B) in order to equitably distribute any such recovery from a general fund recoverable by any claimant who successfully pursues her claim on an appropriate theory before a jury or in settlement." Thus it appears that toxic tort victims may indeed be able to use (b)(1)(B) actions in the future if punitive damages seem likely and this California decision is widely accepted.

50. Fed. R. Civ. P. 23(b)(2).

51. Advisory Committee's Note, Rule 23, 39 F.R.D. 69, 102 (1966).

52. Id.

53. Id. See also Pruitt v. Allied Chemical Corp., 85 F.R.D. 100, 108 (E.D. Va. 1980).

54. In re "Agent Orange" Product Liability Litigation, M.D.L. No. 381 506 F. Supp. 762, 790 n. 35 (E.D.N.Y. 1980).

55. Id. at 790. See Biechele v. Norfolk and Western Railway, 309 F. Supp. 354 (N.D. Ohio 1969) (Rule 23(b)(2) class certification for plaintiffs seeking to enjoin coal storage causing coal dust air pollution).

56. Fed. R. Civ. P. 42(b).

57. Poindexter v. Tuebert, 462 F.2d 1096, 1097 (4th Cir. 1972).

58. Shelton v. Pargo, Inc., 582 F.2d 1298, 1312-13 (4th Cir. 1978).

59. Eisen v. Carlisle and Jacquelin, 417 U.S. 156, 177-78 (1974); Miller v. Mackey International, 452 F.2d 424, 427 (5th Cir. 1971); Briggs v. Brown and Williamson Tobacco Corp.,Inc., 414 F. Supp. 371, 375 (E.D. Va. 1976). See Also Pruitt v. Allied Chemical Corp., 85 F.R.D. 100, 104 (E.D. Va. 1980).

60. Becker, *The Class Action Conflict: A 1976 Report*, 75 F.R.D. 167,170 (1976), citing Mullane v. Central Hanover Bank and Trust Co., 339 U.S. 306 (19) and Eisen v. Carlisle and Jacquelin, 417 U.S. 156 (1974).

61. 41 F.R.D. 147 (S.D.N.Y. 1966) (class certification denied); 370 F. 2d 119 (2d Cir. 1966); *cert. denied*, 386 U.S. 1035 (1967) (Eisen I) (district court's interlocutory denial of class certification appealable in absence of final judgement under the "death knell" doctrine); 391 F. 2d 555 (2d Cir. 1968) (Eisen II) (reversal of district court's denial of class certification and remand for further findings); 52 F.R.D. 253 (S.D.N.Y. 1971) and 54 F.R.D. 565 (S.D.N.Y. 1972) (district court holds action maintainable as a class action, with defendant to bear 90% of the cost of notice); 479 F. 2d 1005 (2d Cir. 1972), *cert. granted*, 414 U.S. 908 (1973) (Eisen III) (reversal of district court's certification because fluid-class recovery theory not permitted and therefore class is unmanageable); 417 U.S. 156 (affirmance of Court of Appeals in Eisen III as per required notice and prepayment of notice costs by plaintiff, reservation of fluid class recovery question).

62. 417 U.S. 156,178-79(1974).

63. Becker, *supra* note 60 at 172.

64. *E.g.*, Eisen concerned a national class of over 6,000,000 potential claimants. *Biechele*, on the other hand, concerned only the townspeople of Sandusky, Ohio.

65. *See*, *e.g.*, legal notice proposed by court in Biechele v. Norfolk and Western Railway Co., 309 F.Supp. 351, 360 (N.D. Ohio 1969).

66. 506 F.Supp. 762, 791 (E.D.N.Y. 1980).

67. In fact, designating such donations of space or time as a charitable gift would allow the media to take a deduction for lost commercial time and encourage its cooperation. Alternatively, the FCC could by regulation require media to provide time and space for such notices. For further thoughts on this subject, *see* Weinstein, supra note 13 at 302.

68. *See* 28 U.S.C. § 1332(a).

69. *See* Becker, *supra* note 60 at 168.

70. Snyder v. Harris, 394 U.S. 332 (1969).

71. Zahn v. International Paper Co., 414 U.S. 291 (1973).

72. 53 F.R.D. 430,432 (D.C. Vt. 1971).

73. 63 F.R.D. 78 (1974).

74. *Id.* at 80

75. *Id.* at 80-81.

76. *Id.* at 81

77. Id. at 81-82.

78. 309 F. Supp. 354 (N.D. Ohio 1969).

79. 394 U.S. 332 (1969).

80. Biechele v. Norfolk & Western Railway, 309 F. Supp. at 355 (1969).

81. The Biechele court certified this suit as a 23(b)(2) action for injunctive relief upon removal from the state court. Jurisdiction over the damage action was assumed under the removal statute, 28 U.S.C. § 1441(c):

> 'Jurisdiction properly lies in this court under 28 U.S.C. § 1441(c). The claims are sufficiently separate to allow removal of the injunctive action alone. Therefore this Court, in the interest of judicial efficiency, will assume jurisdiction over the entire controversy.' 309 F. Supp. at 355.
>
> Section 1441(c) likewise expressly leaves such an assumption of jurisdiction to the discretion of the court:
>
> Whenever a separate and independent claim or cause of action, which would be removable if sued upon alone, is joined with one or more otherwise non-removable claims or causes of action, the entire case may be removed and the district court may determine all issues therein, or, in its discretion, may remand all matters not otherwise within its original jurisdiction. (Emphasis supplied)

Id. at 356 .

82. See, e.g., Yandle v. PPG Industries, 65 F.R.D. 566, 570 (1974)

83. Fed. R. Civ. P. 23(b)

84. See supra note 25 for text of Rule 23.

85. See text accompanying note 12, supra.

86. See Note, Mass Accident Class Actions, supra note 35, at 1621.

87. Fed. R. Civ. P. 23(c)(4).

88. Zeisal and Callahan, Split Trials and Time Savings: A Statistical Analysis, 76 Harv. L. Rev. 1606 (1963), cited in Note, Mass Accident Class Actions, supra note 35, at 1621.

89. Id.

90. Id.

91. Id.

92. 61 F.R.D. 558 (S.D.Fla. 1973).

94. 47 F.R.D. 155 (N.D. Ill. 1969).

95. 50 F.R.D. 76 (E.D. Pa. 1970).

96. 344 F. Supp. 1337 (E.D. Pa. 1972), aff'd 483 F. 2d 294 (3rd Cir. 1973).

97. *See* text accompanying note 12, *supra*. *See also* Wright v. McMann, 321 F. Supp. 127, 137 (N.D.N.Y. 1970), modified 460 F. 2d 126 (2d Cir. 1972).

98. 63 F.R.D. 78 (M.D. Pa. 1974).

99. *Id.* at 84.

100. 86 F.R.D. 476 (D. Vt. 1980).

101. *Id.* at 479.

102. *Id.*

103. *Id.* at 481.

104. 85 F.R.D. 100 (E.D.Va. 1980).

105. In re "Agent Orange" Product Liability Litigation, MDL No. 381, 506 F. Supp. 762 (E.D.N.Y. 1980).

106. *Id.* at 117.

107. *Id.*

108. 442 F. Supp. 1087 (S.D.N.Y. 1977), *dismissed without opinion*, 578 F. 2d 1370 (2d Cir. 1978).

109. *Id.* at 1089.

110. In re "Agent Orange" Product Liability Litigation, MDL No. 381, 506 F. Supp. 762, 785 (E.D.N.Y. 1980).

111. *Id.*

112. *Id.* at 786.

113. *Restatement of Conflict of Laws* § 378 (1934).

114. 12 N.Y. 2d 473, 191 N.E. 2d 279 (1963).

115. *Restatement (Second) of Conflict of Laws* § 145 (1971).

116. *See*, Note, *Mass Accident Class Actions*, *supra* note 35 at 1622.

117. *Id.* at 1622-23 (footnotes omitted).

118. *See*, Petition of Gabel, 350 F. Supp. 624, 628 (C.D. Calif. 1972).

119. In re "Agent Orange" Product Liability Litigation, MDL No. 381, 506 F. Supp. 762, 786 (E.D.N.Y. 1980).

120. 65 F.R.D. 566 (E.D. Tx. 1974).

121. *Id.* at 570-71.

122. *See* text accompanying notes 110-112, *supra*.

123. *See* text accompanying note 103, *supra*.

124. *Fed*. *R*. *Civ*. *P*. 23(a)(1). *See also* note 27 *supra*.

125. *See*, *e.g*., Pruitt v. Allied Chemical Corp., 85 F.R.D. 100, 115 (E.D. Va. 1980); Dolgow v. Anderson, 43 F.R.D. 472, 482 (E.D. Va. 1980).

126. Philadelphia Electric Co. v. Anaconda Brass Co., 43 F.R.D. 452, 463 (E.D. Pa. 1968).

127. *Fed*. *R*. *Civ*. *P*. 20.

128. Pruitt v. Allied Chemical Corp., 85 F.R.D. 100, 115 (E.D. Va. 1980).

129. *Id*.

130. *Fed*. *R*. *Civ*. *P*. 42(a).

131. *See*, Note, *Mass Accident Class Actions*, *supra* note 35 at 1625. *See also* Comment, *Consolidation in Mass Tort Litigation*, 30 U. Chi. L. Rev. 373 (1963).

132. *See*, *e.g*., Klager v. Inland Power and Light Co., 1 F.R.D. 114 (W.D. Wash. 1939).

133. *See*, Note, *Mass Accident Class Actions*, *supra*, note 35 at 1626.

134. *Id*. at 1625. The author notes this presumably includes a separate right to appeal. *See*, Minnesota v. United States Steel Corp., 44 F.R.D. 559, 581-82 (D. Minn. 1968), cited *id*. at 1625 n. 71.

135. 28 U.S.C. §1404.

136. 19 Cal. 2d 807, 122 P.2d 892 (1942).

137. *See*, *e.g*., Maryland *ex rel* Gliedman v. Capital Airlines, Inc., 267 F. Supp. 298 (D. Md. 1967)(dictum); United States v. United Airlines, Inc., 216 F. Fupp. 709 (E.D. Wash. and D. Nev. 1962), *aff'd sub nom*. United Airlines v. Wiener, 335 F.2d 379 (9th Cir.), *petition for cert. dismissed*, *sub nom*., United Airlines v. United States, 379 U.S. 951 (1964); Hart v. American Airlines, Inc., 61 Misc. 2d 41, 304 N.Y.S.2d. 810 (Sup. Ct. 1969) for cases permitting collateral estoppel. *But c.f*., Berner v. British Commonwealth Pacific Airlines, Ltd., 346 F.2d 532 (2d Cir. 1965), *cert denied*. 382 U.S. 983 (1966); Price v. Atchison, T and S.F. Ry., 164 Cal. App. 2d 400, 402-03, 330 P.2d 933, 934-35 (2d Dist. 1958); Montgomery v. Taylor Green Gas Co., 306 Ky. 256, 206 S.W.2d. 919 (1947). *See generally* Note, *Mass Accident Class Actions*, *supra* note 35 at 1628-30.

138. *Id.* at 1629. *See also* Note, *Collateral Estoppel in Multistate Litigation*, 68 Colum. L. Rev. 1590, 1590-96 (1968).

139. *See* Pruitt v. Allied Chemical Corp., 85 F.R.D. 100, 116 (E.D. Va. 1980).

140. 496 F.2d 747 (3rd Cir. 1974).

141. Becker, *supra* note 60, at 173.

142. *See* Rheingold, *Mass Disaster Litigation and the Use of Plaintiffs' Groups*, 3:3 Litigation 18 (1977).
It should be noted that on June 25, 1981, the Dalkon Shield Litigation was conditionally certified as a class action. *See*, *supra*, note 49.

143. *Id.*

144. *Id.*

145. *Id.*

146. *Id.* at 19

147. *See also* Rheingold, *The MER/29 Story -- An Instance of Successful Mass Disaster Litigation*, 56 Calif. L. Rev. 116 (1968).

148. *Fed. R. Civ. P.* 23, Advisory Committee's Note, 39 F.R.D. 69, 104 (1966).

149. *See, e.g.*, Hobbs v. Northeast Airlines, Inc., 50 F.R.D. 76, 79 (E.D. Pa. 1970). *See also* Note, *Mass Accident Class Actions*, *supra* note 35 at 1634.

150. *Fed. R. Civ. P.* 23.

151. *See, e.g.*, Petition of Gabel, 350 F. Supp. 624 (C.D. Calif. 1972).

152. *In re* Plumbing Fixture Cases, 298 F. Supp. 484, 493-94 (Jud. Pan. Mult. Lit. 1968), cited in Note, *Mass Accident Class Actions*, *supra* note 35 at 1636 n. 148.

153. Kronenberg v. Hotel Governor Clinton, Inc., 281 F. Supp. 622, 624-25 (S.D.N.Y. 1967), cited *id.* at 1636 n. 150.

154. *See, e.g.*, Pruitt v. Allied Chemical Corp., 85 F.R.D. 100 (E.D. Va. 1980) (subclasses based on theories of liability proposed).

155. *See* Part IIIA *supra*.

156. *See, e.g.*, Pruitt v. Allied Chemical Corp., 85 F.R.D. 100, 117 (E.D. Va. 1980); Biechele v. Norfold & Western Railway, 309 F. Supp. 354, 359 (N.D. Ohio 1969).

157. Briskin v. Glickman, 267 F. Supp. 600 (S.D.N.Y. 1967); Hanna v. Plumer, 380 U.S. 460 (1965).

158. *See generally* Homburger, *"State Class Actions and the Federal Rule,"* 71 Colum. L.R. 609 (1971).

159. Although a court need not obtain personal jurisdiction over absent class members, there is debate whether the usual territorial limits on state judicial power apply to class actions. *See* Comment, "*Expanding the Impact of State Court Class Action Adjudications to Provide an Effective Forum for Consumers*," 18 U.C.L.A. L. Rev. 1002, 1008-12 (1971).

160. *Fed*. *R*. *Civ*. *P*. 4.

161. *See* Homburger, *supra* note 158.

162. *See* Note, "*The Rule 23(b)(3) Class Action: An Empirical Study*", 62 Geo. L.J. 1123 (1974).

163. For example, under trademark, patent and securities law.

164. *See* JONES and WELDON, LAWYERS' READY REFERENCE TO CLASS ACTIONS, (1972)

165. *See* text accompanying footnotes 58-82 *supra*.

166. JONES and WELDON, *supra* note 164 at 60, 70-71.

167. NEWBERG, CLASS ACTIONS, §1205a at 298 (1981).

168. *Id*.

169. *Id*. *But* *c.f*. "Consumer Protection in States and Local Communities" Staff Studies Prepared for the National Institute for Consumer Justice (1974), General Appendix C at 656, for discussion of nonreceptive federal judges.

170. JONES and WELDON, *supra* note 164 at 60.

171. *See* 28 U.S.C. §§1407, 2283.

172. Alabama; Arizona; Arkansas (modified); Colorado; Delaware; Hawaii: Idaho; Illinois (modified); Indiana; Kansas (modified); Kentucky; Nevada; New Jersey (modified); North Dakota (modified); (adopted Uniform Class Action Rule); Ohio (modified); Oklahoma (modified); Oregon (modified); Pennsylvania (modified); South Dakota; Tennessee: Maryland (modified); Massachusetts (modified); Minnesota; Missouri: Montana; Texas (modified); Utah; Vermont; Washington; Wyoming. *See* NEWBERG, *supra* note 167, 1981 Supp. §1210b at CS4-2.

173. *Id*. at volume 1, §1210b at 305 (1977).

174. Alaska, Georgia, Iowa, Louisiana, Maine, Michigan, New Mexico, North Carolina, Rhode Island, West Virginia. *Id*. at Supp. 1980, §1210b at 129.

175. California, Connecticut, Florida, Nebraska, South Carolina, Wisconsin, Id. at Supp. 1981, §1210b at CS4-3.

176. Mississippi, New Hampshire, Virginia. Id. at vol. 1, §1210b at 130; Supp. 1981, §1210b at CS4-3.

177. See, e.g., Evans v. Progressive Casualty Ins. Co., 300 So.2d 149 (Miss. 1974) (class denied); Town of Hampton v. Palmer, 99 NH 143, 106 A.2d 397 (N.H. 1954)(class upheld).

178. N.Y. Session Laws 1849 c 438 §119.

179. Homburger, supra note 158 at 615.

180. See Rules Advisory Committee Notes to Rule 23, as revised, 39 F.R.D. 69, 98-99 (1966).

181. North Dakota, N.D. CENT. CODE R. CIV. P. 23 (as amended effective 2-15-77)

182. See, e.g., Alpert, The Uniform Class Actions Act: Some Promise and Some Problems, 16 Harv. J. Legis. 583 (1979).

O.

SOVEREIGN IMMUNITY AND THE ELEVENTH AMENDMENT AS APPLIED TO STATE OWNED HAZARDOUS WASTE FACILITIES

TO: Superfund §301(e) Study Group

FROM: Frank P. Grad, Reporter

RE: Sovereign Immunity and the Eleventh Amendment As Applied to State Owned Hazardous Waste Facilities

DATE: June 16, 1982

In states which manage or own their own hazardous waste facilities,[1] a plaintiff seeking relief for personal injury or property damages may be confronted with two additional obstacles. First, the 11th Amendment to the U.S. Constitution may preclude plaintiff's use of federal courts. Second, the doctrine of sovereign immunity may bar recovery from the state.

The Eleventh Amendment bars suits against a state in federal court, when brought by a citizen of another state or an alien. Furthermore, the Supreme Court has construed it to bar suits in federal court against a state by one of its own citizens, even though the Amendment itself makes no mention of this prohibition.[2] Immunity from suit also extends to municipalities engaging in governmental functions.[3]

It is settled law, however, that a state may consent to suit in federal court.[4] Consent may be manifested in a state statute, voluntary appearance or by virtue of the state's involvement in a "federal activity," such as interstate or foreign commerce.[5] A waiver of immunity, however, will not be readily implied.[6]

The plaintiff in a hazardous waste case is likely to need the more liberal federal discovery rules[7] available only in federal court. Other advantages include a more experienced bench and reputedly higher jury awards.[8] The Eleventh Amendment, therefore, will be an obstacle to plaintiff's use of his most advantageous forum, absent consent by the state or a state hazardous waste facility which engages in a federal activity. For example, should a state handle wastes from generators in other states, the activity might well be considered interstate commerce and thus open the door for federal jurisdiction over plaintiff's claim.

Even if suit can be brought, however, the doctrine of sovereign immunity may preclude recovery of damages from the defendant state. This doctrine, derived from English royal law, will insulate a state from tort liability[9] Where immunity exists for the state, it also extends to state agencies, such as hospitals, educational institutions, public works commissions, and, one may infer, hazardous waste facilities.[10] Efforts are made by the courts, however, to find a legislative intent to make the agency subject to tort liability.[11]

State supreme courts have expressed pronounced hostility towards the doctrine.[12] The legislative reaction to judicial attempts to create exceptions to the doctrine has been mixed. The predominant message from the state legislators has been that they are unwilling to subject the state to tort liability commensurate with that of individuals and corporations.[13] In every instance in which a state court has abolished immunity, the state legislature has either completely reinstated the doctrine, or has at least limited the liability.[14] Nevertheless, judicial exceptions to the doctrine do remain.

The treatment of municipal corporations differs from that of states. Due to their unique character as state subdivisions, they engage in governmental functions. Simultaneously, they are corporate entities who can perform functions identical to that of a private corporation. The courts have recognized this dual character and held that immunity extends to "governmental" activity, but not to "private" or "proprietory" activity.[15]

The characterization of activities is not always easy, though some indeed are clearly governmental (e.g. failure to pass or enforce a law)[16] or private (e.g. operating a garage).[17] Such things as supplying electricity and water, operating docks and airports, and managing housing units have been held to be proprietary functions.[18] If it can be shown that the municipal corporation is engaging in industrial or business activity rather than in actions in pursuit of the general welfare of its inhabitants, tort liability is more likely to follow.[19] Whether a hazardous waste facility would be classified as an example of "proprietary" or "governmental" activity is as yet undetermined.

A further exception to the unequivocal immunity rule exists when a municipal corporation creates or permits a nuisance due to nonfeasance or misfeasance. In such cases, courts have long held that the municipality is liable for damages in a civil action, even if it was exercising a "governmental" function and regardless of whether it was negligent.[20] This exception could be important to victims of hazardous waste exposure who can show that the municipality's facility constituted a nuisance.

The judicially created exception to sovereign immunity in the cases against states have developed somewhat symmetrically to those recognized in cases against municipal corporations. Where a state has acquired possession of a hazardous waste facility which creates personal injury or property damage, some courts may be receptive to the familiar arguments seen in the municipal corporation context.

For instance, the "governmental - proprietary" dichotomy has been recognized in cases against state governments.[21] Just as in the municipality cases, however, the distinction is not always satisfactory as there is rarely any clear enunciation of a logical ground for the different characterizations.[22] Notwithstanding this criticism, the distinction does evince the courts' hostility toward the immunity doctrine and its receptiveness to arguments that will enable it to ameliorate its harsh consequences. This is consistent with our purposes.

The nuisance exception also arises in cases against state governments. In the seminal case for Massachusetts[23] in which the state's storage of road salt on state-owned property caused the pollution of plaintiff's water supply, the court stated that:

> we agree with the argument that municipalities of Massachusetts are liable for private nuisances and there is no logical reason why the Commonwealth should not be similarly liable. Municipal liability for private nuisance arises from a court made exception to the rule of governmental immunity, viz: where a municipality is the owner of or in control of real estate and creates or permits a private nuisance to the real property of another, it is liable in a common law action just as a natural person would be. This liability attaches even where the nuisance arises out of the performance by the municipality of a governmental duty.[24]

Whether this case is to be restricted to its facts of a private nuisance resulting in property damage or will be given a more liberal interpretation remains to be seen. There is also the question of when a court will consider an activity a nuisance as opposed to a traditionally negligent act.[25] A hazardous waste facility seems to resemble a classic nuisance, but courts may be hesitant to abrogate the immunity doctrine where potential liability is so great.

Conclusion

The strict doctrine of sovereign immunity as it was known at common law has undergone considerable change at the hands of courts and legislatures. How much of the doctrine remains as a barrier to suit against a political entity in any given state would require independent study of that state's statutes and decisions. This memorandum attempts only to show some of the common exceptions that have been carved out of what is still a doctrine with some vitality.

Even where a claim exists against the state or municipality in a state court, the Eleventh Amendment and its judicial interpretation may be foreclose resort to the more desirable federal forum.

:1.

FOOTNOTES

THE COUNCIL OF STATE GOVERNMENTS

November 1981

HAZARDOUS WASTE MANAGEMENT IN THE STATES

State or other jurisdiction	State[2] hazardous waste management programs	State hazardous waste management plans	Siting Hazardous Waste Facilities						Transportation	Enforcement
			Permitting/Approval Authority			Siting Provisions				
			State level department	* State level board	State level siting board	State ownership/ operation	State preemption	Local veto	State manifest system	Felony Status
Alabama	*	pdg	...	x	...	...	...	...	x	x
Alaska	#	...	x	...	...	...	...	...	...	x
Arizona	*	...	x	...	...	x	x	...	...	...
Arkansas	*	x	x	...	...	...	...	x	x	...
California	*	x	x	...	...	...	...	...	x	...
Colorado	*	x	x	...	...	...	...	x	...	...
Connecticut	(* pdg)	...	x	...	x	...	x	...	x	x
Delaware	*	x	...	...	...	...	...	...	x	...
Florida	(* pdg)	x	x	...	...	...	x	...	...	x
Georgia	*	x	x	...	...	x	x	...	x	x
Hawaii	*	...	...	...	...	...	...	...	...	...
Idaho	x	pdg	...	...	...	...	...	...	...	...
Illinois	(* pdg)	x	x	...	...	...	...	x	x	x
Indiana	*	...	...	x	x	...	x	x	...	...
Iowa	*	x	...	...	...	...	x	...	x	...
Kansas	*	pdg	x	x	...	x	x	...	x	x
Kentucky	*	x	x	...	...	...	...	x	x	x
Louisiana	*	...	x	x	...	...	...	...	x	...
Maine	*	x	...	x	...	...	x	...	x	x
Maryland	*	x	x	...	x	x	x	...	x	x
Massachusetts	*	x	x	...	...	...	...	...	x	x
Michigan	*	x	x	...	x	...	x	...	x	...
Minnesota	*	x	x	...	x	x	x	...	...	...
Mississippi	*	...	...	x	...	...	...	...	x	...
Missouri	*	x	x	...	...	...	...	...	x	...
Montana	*	x	x	...	...	x	...	...	x	...
Nebraska	*	x	x	...	...	x	...	x	...	...
Nevada	+	pdg	pdg	...	...	x	...	...	x	x
New Hampshire	*	...	x	...	...	...	...	...	x	x
New Jersey	(* pdg)	...	x	...	pdg	...	pdg	...	x	x(c)
New Mexico	+	...	x	...	...	...	x(b)	...	x	...
New York	(* pdg)	pdg	x	...	x	x	...	x	pdg	x
North Carolina	*	x(e)	x	x	...	x	x(b)	...	x	...
North Dakota	*	...	x	...	...	...	...	x	...	...
Ohio	(* pdg)	...	x	...	...	...	x	...	x	x
Oklahoma	*	...	x	...	...	...	...	...	x	...
Oregon	*	x	x	...	...	x	...	...	x	x
Pennsylvania	*	...	x	...	...	...	x	...	x	x
Rhode Island	*	pdg	x	...	...	...	...	...	x	x
South Carolina	*	...	x	...	...	...	...	...	x	...
South Dakota	*	x	...	x	...	...	...	...	...	...
Tennessee	*	...	x	x	...	...	...	...	x	x
Texas	*	...	...	x	...	...	...	...	x	...
Utah	*	...	...	...	...	...	...	...	...	...
Vermont	*	x	...	...	...	...	...	...	x	...
Virginia	*	x(e)	x	...	...	x	x	...	...	x
Washington	*	x	x	...	...	x	...	...	x	pdg
West Virginia	*	x	...	...	...	...	...	...	...	x
Wisconsin	*	...	x	...	...	...	x	...	x	...
Wyoming	x	...	...	...	...	...	...	...	...	...
American Samoa	...	...	...	...	...	...	...	...	...	...
Guam	*	pdg	pdg	...	...	pdg	...	...	pdg	pdg
Puerto Rico	(* pdg)	...	...	...	...	...	...	...	...	...
Virgin Islands	...	...	...	...	...	...	...	...	...	...
D.C.	pdg	pdg	x	...	...	...	...	...	x	...

Key:
* — EPA interim authorization (Phase I).
x - Active state program.
‡ - Inactive.
+ - Adopted state regulations.
# - State regulations in development and draft stages.
(a) - Under state solid waste plan.
(b) - Under state eminent domain statutes.
pdg - Pending.
(c) - Some regulations are enforced under misdemeanor status, some under felony status.
(e) - State regulations completed and pending adoption.
Source: Compiled by The Council of State Governments, November, 1981.

[2] Updated January 26, 1982.

Council of State Governments, Waste Management in the States (January 1982).

2. Hans v. Louisiana, 134 U.S. 1 (1970).

3. Defendant v. McLaughlin, 228 F. Supp. 615 (S.D. N.D. 1964).

4. WRIGHT and MILLER, FEDERAL PRACTICE AND PROCEDURE §3524 (1981).

5. *Id.*

6. *Id.*

7. *Fed. R. Civ. P.* 26-37.

8. *See* Appendix N, Use of Class Actions for Mass Toxic Torts, for a discussion of the advantages of federal courts.

9. PROSSER, LAW OF TORTS §131 (1971).

10. *Id.*

11. *See, e.g.*, Keifer and Keifer v. Reconstruction Finance Corp., 306 U.S. 381 (1939).

12. Nat'l Ass'n of Att'ys Gen. Comm. on the Office of Att'y Gen., *Sovereign Immunity: The Liability of Government and Its Offices* at 24 (1975).

13. Alstyne, *Government Tort Liability: A Decade of Change*, 1966 U. Ill. L. F. 919.

14. Nat'l Ass'n of Att'ys Gen., *supra* note 12, at 28, 29-32.

STATE LIABILITY LEGISLATION

State	Statutory Provision	Coverage
Alabama	Tit. 35, § 199	Defense of state militia.
Alaska	Tit. 26, Ch.05 § 140	A.G. defend militia.
Arizona	§ 26-159C	A.G. defend militia.
	§ 41-192.02	A.G. has discretion to represent state employees.
Arkansas	§ 11-1008	A.G. or appointed counsel defend militia.
	§ 12-2901	Immunity doctrine asserted.
California	Gov't.Code § 810 et.seq.	Tort Claims Act.
Colorado	§ 94-11-46	Defense of state militia
	§ 72-16-2	Authorizes insurance for officers, employees.
Connecticut	§ 4-165	Immunity for state officers and employees in line of duty except for wanton or willful acts.
	§ 3-125	A.G. appears when state is a party to suits against state officials.
Delaware	No statutory provision	
Florida	§ 111.07	State agencies may authorize defense of officers or employees sued for acts within the scope of employment in absence of wanton or willful misconduct.
	§ 250.31	Defense of state militia.

Georgia	§ 89-920	Defense by A.G. of public officer sued for acts pursuant to his duties.
	§ 86-11-1	A.G. defend state militia.
Hawaii	Ch. 662	Tort Claims Act.
Idaho	Tit. 6, Ch. 9	Tort Claims Act.
Illinois	Ch. 85	Tort Claims Act.
	Ch. 129 § 220.90	Defense of state militia.
Indiana	§ 49-1902a	A.G. defend official or employee for suits arising within scope of employment.
	§ 45-2104	A.G. defend militia.
Iowa	§ 25A.1 et. seq.	Tort Claims Act.
	§ 29A.51	A.G. defend state militia.
Kansas	§ 75-3217	State defend law enforcement and corrections personnel in suits arising from acts within scope of employment.
Kentucky	No statutory provision	
Louisiana	49:461	A.G. may defend civil actions against state ministerial officers in their official capacity.
	29.70	A.G. defend state militia.
Maine	Tit. 37A, § 211	A.G. defend state militia.
Maryland	Art. 32A	A.G. on request may defend action against officer or employee within scope of employment.
Massachusetts	Ch. 12 § 3	A.G. must appear on behalf of officers whose official acts are challenged.
	Ch. 12 § 3b	A.G. on request may defend correctional and health officials sued for acts in scope of employment.
Michigan	§ 691.1408	State agency may provide for representation of officer or employee sued for acts in scope of employment.
	§ 4.678(179)(d)	A.G. required to defend militia.
Minnesota	§ 15.181	State provides defense of non-elected state employees for actions arising from employment.
	§ 192.29	A.G. may recommend representation of militia.
Mississippi	No statutory provision re	state
	§ 25-1-47	Municipalities may provide for defense of their employees.
Missouri	§ 105.710	Tort Defense Fund to pay judgments against officers or employees of militia, health and corrections divisions.

Montana	§ 82-4301 et seq.	Tort Claims Act.
Nebraska	§ 81-857 et seq.	Tort Claims Act.
Nevada	§ 228.140	A.G. defend official sued in official capacity.
	§ 41.031	State waives immunity for torts.
	§ 41.038	State or subdivisions may insure employees.
New Hampshire	§ 412:3	State may procure liability insurance.
New Jersey	Tit. 59-1	Tort Claims Act.
New Mexico	§ 4-3-16	A.G. on request defend officers or employees when acting within scope of employment.
	§ 5-6-19	State authorized to insure employees against tort liability.
New York	§ 17 Public Officers Law	Tort Claims Act.
North Carolina	§ 143-291 et seq.	Tort Claims Act.
North Dakota	§ 54-12-01	A.G. must defend actions against state officers in official capacity.
Ohio	§ 2743.01 et seq.	Tort Claims Act.
Oklahoma	Tit. 74 § 18c	A.G. must defend on request state officer sued in official capacity.
	Tit. 11 § 1175 *et seq.*	Municipal Tort Liability Act.
Oregon	§ 243.510	A.G. must represent on request officer or employee for torts committed within scope of employment.
Pennsylvania	No statutory provision	A.G. defends state officials as matter of policy.
Rhode Island	§ 42-9-6	A.G. must defend state officials sued in official capacity.
	Tit. 9 Ch. 31	Abolishes governmental tort immunity.
South Carolina	§§ 10-2621-10-2625	Motor Vehicle Tort Claims Act.
	§ 1-234	A.G. on request defend officer or employee for acts done in scope of employment.
South Dakota	§ 3-19-1	When officer or employee sued, state may (1) pay or indemnify for cost of defense, (2) pay or indemnify for judgment or settlement.
	§ 33-6-4	State defend militia.
Tennessee	§ 23-3301 *et seq.*	Tort Claims Act.
	§ 7-143	State defend militia.
Texas	Tit. 110A, Art. 6252-19	Tort Claims Act.
Utah	§ 63-30-3	Governmental Immunity Act.
	§ 67-5-1	A.G. must defend suits to which state or officer in official capacity in party.

Vermont	Tit. 12, § 5601-5605	State allow tort claims up to $300,000.
	Tit. 3, § 1101	State must provide counsel for employee sued for acts within scope of employment.
Virginia	§ 21-121	A.G. represent state officials in all civil litigation to which they are parties.
	§ 44-100	A.G. approve counsel to defend militia.
Washington	§ 4.92.060	State officer or employee may request state to defend him in actions arising out of official duties.
West Virginia	§ 5-3-2	A.G. must defend all actions against state officers in his official capacity, as well as actions against the militia.
Wisconsin	§ 165.25(6)	A.G. upon request of department, represent employee charged with enforcing the law or a tort action.
Wyoming	§ 9-125(a)	A.G. must defend state officer sued in their official capacity.

15. See, e.g., Kraft Foods v. Weather Dairy Products, 118 F. Supp. 1 (D.C. Wis. 1954), aff'd 234 F. 2d 279 (7th Cir. 1954), cert. denied 352 U.S. 926.

16. PROSSER, supra note 9, at §131.

17. Id.

18. Id.

19. People of the State of California v. Superior Court, 178 P. 2d 1, 29 Cal. 2d 754 (1947).

20. L. Haegela v. City of Bridgeport, 299 F. Supp. 709 (D.C. Conn. 1969).

21. See, e.g., Gillot v. Washington Metro Area Transit Authority, 507 F. Supp. 454 (D.D.C. 1981) (operation of a parking lot is a proprietary function).

22. 3 K. DAVIS, ADMINISTRATIVE LAW TREATISE §25.07 (1958).

23. Morash & Sons, Inc. v. Commonwealth, 296 N.E. 2d 461 (1973). See also, Buckeye Union Fire Insurance Co. v. Michigan, 178 N.W. 2d 476, 383 Mich. 630 (1970).

24. Morash & Sons, Inc. v. Commonwealth, 296 N.E. 2d 461, 463 (1973).

25. See, Hanningan v. New Gamma-Delta chapter of Kappa Sigma Fraternity Inc., 327 N.E. 2d 882 (1975) (poorly maintained steps at state university).

*This memorandum is based on research by Steve Givant, Columbia '84, research assistant, L.D.R.F.

COMMENTS TO THE APPENDICES

1. Letter from Professor Frank P. Grad, Reporter of Superfund 301(e) Study Group to Assistant Attorney General Carol Dinkins, United States Department of Justice, dated December 18, 1981.

2. Letter from Senator Jennings Randolph, Ranking Minority Member, and Senator Robert T. Stafford, Chairman, Committee on Environment and Public Works, United States Senate, to Mr. James R. Zazzali, Chairman, Superfund 301(e) Study Group, dated April 29, 1982.

3. Letters from George C. Freeman, Jr.:

    a. To Frank Grad, dated December 16, 1981, Comments on Your December 1 Memorandum on Implied Right of Action and Negligence Per Se.

    b. To Frank Grad, dated February 19, 1982, SUPERFUND STUDY Presumptions, Presumptions.

    c. To James R. Zazzali, dated March 2, 1982, Superfund Study - The Dimensions of the Problem: A Further Plea for Timely Information from Justice and EPA.

    d. To Frank Grad, dated March 10, 1982, SUPERFUND - Thoughts on Strict Liability, International Competition, Transitions, Retroactivity and Practicality.

    e. To Superfund 301(e) Study Group, dated April 12, 1982.

    f. To Superfund 301(e) Study Group, dated May 17, 1982 [with attached memorandum dated May 14, 1982, from Alfred R. Light to George C. Freeman, Jr., SUPERFUND 301(E) STUDY -- RESPONSE TO SENATE ENVIRONMENT AND PUBLIC WORKS INQUIRY TO SUPERFUND 301(E) STUDY GROUP].

December 18, 1981

Carol Dinkins, Esq.
Assistant Attorney General
Land and Natural Resources
Division
Department of Justice
9th and Pennsylvania Avenues, N.W.
Washington, D.C. 20530

Dear Ms. Dinkins:

The Superfund Section 301(e) Study Group would like for the Justice Department, with the assistance of EPA, to prepare a summary for us of the following information, to the extent that such information is not privileged:

1. The hazardous waste sites, now in litigation or being investigated by EPA for proposed corrective action under Superfund;

2. Any priorities which have been established for clean up action and any explanation for how priorities were set;

3. Any lists of hazardous substances known or suspected to be at such sites and the industries where such substances are known or suspected to have been generated;

4. Any estimates, studies or surveys of any
   (a) estimated clean up or stabilization costs at such sites,
   (b) injuries to persons known or expected,
   (c) damage to property (other than in (a) above)
   resulting from disposal of hazardous wastes in the United States;

5. Any other studies or estimates of injuries or property damages resulting from hazardous waste disposal.

The Study Group would also like for the Justice Department to ask the Federal agency charged with administration of the Black Lung Benefits program (30 U.S.C. Sections 901-941, 951, 958) to furnish us a copy of the materials supplied to Congress in support of the recent recommended increase in funding discussed in the attached New York Times article. Please furnish any studies that have been made by that agency, OMB or any other agency as to claims experience or other matters bearing on administration of the program. In particular, if any reconciliation has been made of the costs estimated for the program at the time the Act was passed and subsequent actual experience under the Act, the Study Group would like to have that information.

The Study Group greatly appreciates the expert assistance the Justice Department has given us in our work thusfar. Thank you for your attention to this request.

Sincerely,

F.P. Grad

Frank P. Grad
Reporter
Superfund Section 301(e) Study Group

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United States Senate
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, D.C. 20510

April 29, 1982

Mr. James R. Zazzali
Chairman
Superfund 301(e) Study Group
Gateway 1
Newark, New Jersey 07724

Dear Mr. Zazzali:

This is to request that the Committee created by section 301(e) of P.L. 96-510, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, examine the implications of certain recent Supreme Court decisions.

We are specifically concerned with the rationale and consequences of City of Milwaukee v. Illinois, 451 U.S. 301 (1981), and Middlesex County Sewerage v. National Sea Clammers Association, 49 U.S.L.W. 4783 (1981). These cases hold that the existence of a comprehensive scheme of Federal regulation displaces the Federal common law. The consequence of this holding is to effectively eliminate a Federal private cause of action for damages since Federal regulatory schemes do not typically provide such recourse. The rationale of Milwaukee could extend beyond environmental statutes to include laws regulating the design and safety of automobiles, the marketing of medical devices, the provision of medical care, and a host of other areas. Similarly, application of the Milwaukee decision to eliminate common law at the Federal level could give rise to arguments for eliminating common law at the State level.

It is our fear that Milwaukee and Sea Clammers pose a nascent threat to the already limited ability of injured parties to obtain adequate relief under law, especially for injuries caused by toxic substances. Certainly, both subtitle C of the Solid Waste Disposal Act and the Toxic Substances Control Act could be construed as comprehensive schemes of regulation, as might companion laws at the State level. Although these laws are arguably "comprehensive" under Milwaukee, the Congress has not yet adopted an explicit Federal cause of action for general damages caused by exposure to toxic substances. Instead, these statutes and P.L. 96-510 expressly preserve remedies under other law, in language much like that in the Clean Water Act.

Thus, while these laws broadly regulate behavior with regard to toxic materials, they are not truly comprehensive because they do not provide an adequate substitute for the common law or private rights of action.

Since the Committee was created to examine issues related to the compensation of victims, it seems appropriate for you to examine these decisions and their implications for victim recovery. We would appreciate your doing this if at all possible and providing us with the Committee's views, either as part of the report required by law or separately.

If you have any questions concerning this request, Mr. Curtis Moore and Mr. Phil Cummings of the Committee staff may be reached at 202-224-5761 and 202-224-7843 respectively.

Thank you in advance for your assistance and advice.

Sincerely yours,

Jennings Randolph

Jennings Randolph
Ranking Minority Member

Robert T. Stafford
Chairman

cc: Committee Members
Carol Dinkins

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FILE NO.

DIRECT DIAL NO. 804 788-

December 16, 1981

Comments on Your December 1 Memorandum on Implied Right of Action and Negligence Per Se

Dear Frank:

I have been able to spend some time this weekend reviewing your memorandum of December 1 on "Private Remedies for Violations of Anti-Pollution Statutes: Implied Right of Action and Negligence Per Se." I thought it might be helpful to give you my comments in writing for the San Diego meeting.

1. I believe the paper would be easier to understand if you treated State law all together at one place and then dealt with federal law separately and all together at another.

2. As to federal law, I see a sharp distinction between (1) the line of cases going back to Texas & Pacific Ry. Co., which deal with a special question of statutory construction (e.g. California v. Sierra Club, __ U.S. __, 68 L.Ed. 2d 101 (1981) (holding implied right of action under Rivers and Harbors Act to be unavailable)) and the line of cases discussing the so-called "federal common law" of tort and nuisance (the short and unhappy life of Illinois v. City of

Milwaukee (Milwaukee I), 406 U.S. 91 (1972)). Both lines involve court scrutiny of particular federal statutes but for entirely different purposes. In the first line the search is for evidence of a Congressional intent to create a private cause of action, while in the latter the search is for evidence of intent to preempt (and thus to substitute more precise statutory remedies for other more nebulous common law remedies, if prior existence of the latter is assumed -- a very dubious assumption). The criteria that the Court has used in these separate efforts are different.

3. I have had occasion recently to zero in on City of Milwaukee v. Illinois (Milwaukee II), __ U.S. __, 68 L.Ed.2d 114 (1981), and Middlesex County Sewerage Authority v. National Sea Clammers (National Sea Clammers), __ U.S. __, 69 L.Ed.2d 435 (1981). The context was analyzing the problems presented by a proposed "technical" amendment adding a new subsection (e) to Section 511 of the Clean Water Act, added on the floor of the Senate in the passage of S. 1716. (Subsequently the amendment was not accepted by the conferees and so did not become law.) I thought it might be helpful to share the concerns I had with that proposed amendment since they are relevant to the matters we are considering.

The Supreme Court's Milwaukee II decision definitively resolved that at least since the passage of the 1972 amendments to the Federal Water Pollution Control Act, no federal common law exists with regard to tort or nuisance claims for "hazardous" and other types of water pollution. The National Sea Clammers opinion therefore held that it was moot "whether the federal common law of nuisance could ever be the basis for a suit for damages by a private party." 69 L.Ed.2d at 435, n. 17. See also Comment, Requiem for the Federal Common Law of Nuisance, 11 Envir. L. Rep. 10,191 (1981). Furthermore, I agree with the conclusion on page 12 of your memorandum that the present Court probably would answer the question of whether the federal common law of nuisance could ever be the basis of a suit for damages by a private party in the negative. Thus to the extent that anything remains of "the federal common law" in the environmental pollution context, it remains solely for the benefit of States in interstate pollution in areas where Congress has not provided the states alternative statutory remedies. But the Clean Air Act, the Resource Conservation and Recovery Act, the Toxic Substances Control Act and the Safe Drinking Water Act contain statutory remedies essentially equivalent to those found in the Clean Water Act. So even in the residual area where a State is the plaintiff, I doubt if there is anything left of federal common law relevant to our study.

For these reasons, our Superfund Section 301(e) Study has proceeded properly to date by concentrating on existent State statutory and State common law in this field. For purposes of our study it is irrelevant whether, as an academic matter: (1) federal common law existed with regard to hazardous water borne wastes prior to 1972 or wastes regulated by these other federal acts prior to their enactment and (2) whether federal common law, if existent prior to those dates, ever provided private parties, as distinguished from States (or their subdivisions), rights in tort or nuisance. Revival of those moot issues at this time would have substantially complicated and prolonged our Study.

In order to comprehend the statutory construction and Constitutional problems that would have been created if the proposed revision to Section 511 of the Clean Water Act or equivalent legislation had been adopted, we need to understand what was, and what was not, decided in the two Supreme Court decisions which the "technical" amendment in S. 1716 sought to reverse.

The first of these cases, City of Milwaukee v. Illinois (Milwaukee II), supra, has a long history. It originated with a suit instituted by Milwaukee in the Supreme Court seeking to invoke the original jurisdiction of the Supreme Court in disputes among States. The Supreme Court in Illinois v. City of Milwaukee (Milwaukee I), 406 U.S. 91 (1972), declined to exercise that jurisdiction. The Court's reasoning in Milwaukee I was summarized later in Milwaukee II as follows:

> We declined to exercise original jurisdiction because the dispute was not between two States and Illinois had available an action in federal district court. The Court reasoned that federal law applied to the dispute, one between a sovereign State and political subdivisions of another State concerning pollution of interstate waters, but that the various laws which Congress had enacted "touching interstate waters" were "not necessarily the only federal remedies available." Id. [406 U.S.], at 101, 103. Illinois could appeal to federal common law to abate a public nuisance in interstate or navigable waters. The Court recognized, however, that:
>
>> It may happen that new federal laws and new federal regulations may in time pre-empt the field of federal common law of nuisance. But until that time comes to pass, federal courts will be empowered to appraise the equities of the suits alleging creation of a public nuisance by water pollution." Id., at 107.

68 L.Ed.2d at 121-122.

After Milwaukee I, Illinois on May 19, 1972, filed suit against Milwaukee in the U.S. District Court for the Northern District of Illinois seeking abatement under federal common law of a public nuisance allegedly created by Milwaukee's discharges into interstate or navigable waters. Five months later, Congress amended the Federal Water Pollution Control Act to impose substantial new federal controls on the discharge of pollutants. The district court litigation was suspended while the issuance of permits under the amended act proceeded. Subsequently, however,:

> [T]he District Court rendered a decision finding that respondents had proved the existence of a nuisance under federal common law, both in the discharge of inadequately treated sewage from petitioners' plants and in the discharge of untreated sewage from sewer overflows. The Court ordered petitioners to eliminate all overflows and to achieve specified effluent limitations on treated sewage. . . . A judgment order entered on November 16 specified a construction timetable for the completion of detention facilities to eliminate overflows. Separated sewer overflows are to be completely eliminated by 1986; combined sewer overflows by 1989. The detention facilities to be constructed must be large enough to permit full treatment of water from any storm up to the largest storm on record for the Milwaukee area. . . . Both the aspects of the decision concerning overflows and concerning effluent limitations, with the exception of the effluent limitation for phosphorus, went considerably beyond the terms of petitioners' previously issued permits and the enforcement order of the state court.
>
> On appeal, the Court of Appeals for the Seventh Circuit affirmed in part and reversed in part. The court ruled that the 1972 amendments had not pre-empted the federal common law of nuisance, but that "[i]n applying the federal common law of nuisance in a water pollution case, a court should not ignore the Act but should look to its policies and principles for guidance." 599 F.2d, at 164. The court reversed the District Court insofar as the effluent limitations it imposed on treated sewage were more stringent than those in the permits and applicable EPA regulations. The order to eliminate all overflows, however, and the construction schedule designed to achieve this goal, were upheld.

69 L.Ed.2d at 123.

In its decision in Milwaukee II, the Court reversed the Court of Appeals. It held:

> [A]t least so far as concerns the claims of respondents, Congress has not left the formulation of appropriate federal standards to the courts through application of often vague and indeterminate nuisance concepts and maxims of

> equity jurisprudence, but rather has occupied the field through the establishment of a comprehensive regulatory program supervised by an expert administrative agency. The 1972 amendments to the Federal Water Pollution Control Act were not merely another law "touching interstate waters" of the sort surveyed in Illinois v. Milwaukee, 406 U.S. at 101-103, and found inadequate to supplant federal common law. Rather, the amendments were viewed by Congress as a "total restructuring" and "complete rewriting" of the existing water pollution legislation considered in that case. . . . The establishment of such a self-consciously comprehensive program by Congress, which certainly did not exist when Illinois v. Milwaukee was decided, strongly suggests that there is no room for courts to attempt to improve on that program with federal common law. See Texas v. Pankey, 441 F.2d at 241.

68 L.Ed.2d at 126-128.

The Court expressly rejected an argument by Illinois about subsection 505(e), which provides that:

> Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any effluent standard or limitation or to seek any other relief (including relief againt the Administrator or a state agency).

Federal Water Pollution Control Act § 505(e), 42 U.S.C.A. § 1365(e) (1978), quoted in 68 L.Ed.2d at 133 (emphasis added in the Court's quotation).

The Court stated:

> Respondents argue that this evinces an intent to preserve the federal common law of nuisance. We, however, are inclined to view the quoted provision as meaning what it says: that nothing in § 505, the citizen suit provision, should be read as limiting any other remedies which might exist.

68 L.Ed.2d at 133 (emphasis in original).

The recently proposed amendment of section 511 in S. 1716, which the Conferees rejected, zeroed in on this part of the opinion, paraphrased the language of section 505(e) and substituted "act" for "section." It thus sought to avoid in future cases in this field the "automatic displacement" approach about which the three dissenters in Milwaukee II complained. See 68 L.Ed. at 136 (Blackmun, J. dissenting). Thus, if proposed section 511(e) had become law, that would have been its intended goal. But even so, it by no means would have followed that the substantive result concerning the application of federal common law of nuisance in future cases analogous to Milwaukee II (suits by a State against another State, or against the subdivision of another State or against the citizens of another State) would have been different. The dissenters in Milwaukee II recognized this:

> What the Court today characterizes as the inappropriate application of more stringent standards from Illinois state law in fact reflects a federal common law court's proper exercise of choice-of-law discretion.

68 L.Ed.2d at 147.

Before leaving Milwaukee II to turn to National Sea Clammers, it is important to note that the keystone of the dissent in Milwaukee II was its focus on Article III, § 2 of the Constitution:

> Both before and after *Erie*, the Court has fashioned federal law where the interstate nature of a controversy renders inappropriate the law of either State. . . . When such disputes arise, it is clear under our federal system that laws of one State cannot impose upon the sovereign rights and interest of another. The Constitution, by Art. III, § 2, explicitly extends the judicial power of the United States to controversies between a State and another State or its citizens, and this Court, in equitably resolving such disputes, has developed a body of "what may not improperly be called interstate common law."
>
> Long before the 1972 decision in *Illinois* v. *Milwaukee*, federal common law enunciated by this Court *assured each State the right to be free from unreasonable interference with its natural environment and resources when the interference stems from another State or its citizens. . . . The right to such federal protection is a consequence of each State's entry into the Union and its commitment to the Constitution.*

68 L.Ed.2d at 137-138 (emphasis added).

From this perspective, one effect which the proposed section 511(e) would have had would have been to transfer the federal forum for determining the implied Constitutional rights of the States to equity in interstate pollution from Congress to the federal courts. But that would have raised the question of whether Congress, having once preempted a particular field of federal common law (and it is settled that Congress has done so through the FWPCA since the Supreme Court spoke definitively in *Milwaukee II*), can delegate what is or has become exclusively legislative power under the Constitution to the federal courts through this particular type of general, non-specific, declaratory legislation.

Measured against the newly re-invigorated doctrine of standardless delegation, the bare bones language of this proposed amendment of § 511 might well be unconstitutional. The same criticisms leveled at standardless delegation of legislative power to federal agencies may apply equally to standardless delegation of that power to the federal courts. In this regard, a recent Congressional summary of the doctrine and its application where power is delegated to federal agencies is of interest:

> This subsection of S. 1080 makes several changes to the provisions of the A.P.A. governing the scope of judicial review of agency actions. These amendments are premised on the basic constitutional principle that in a republic, legislative power must be exercised by elected representatives to whom this power has been delegated by the citizenry, see Field v. Clark, 143 U.S. 649, 692 (1892), and on a growing discontent with the degree to which Congress has delegated this power to administrative agencies. As Justice Douglas once asserted, "Unless we make the requirements for administrative action strict and demanding, expertise, the strength of modern government, can become a monster which rules with no practical limits on its discretion. Absolute discretion, like corruption, marks the beginning of the end of liberty." New York v. United States, 342 U.S. 882, 884 (1951) (dissenting opinion).
>
> One primary mechanism for control of agency discretion is the requirement that when the legislature delegates power, it must establish an "intelligible principle" to govern the delegation, and that the judiciary will hold invalid actions which are not authorized by the statutory delegation. Indeed, a number of recent opinions by members of the Supreme Court have underscored that need by emphasizing that absent clear Congressional guidelines as to the limits of

> delegated power and clear Congressional guidelines as to how, once delegated, the power is to be used, the purported grant may be unconstitutional. . . . Moreover, once Congress has done its duty by establishing such principles, the courts must do their duty by holding invalid actions which are not authorized by that statutory delegation. In the words of Mr. Justice Reed, "An agency may not finally determine the limits of its statutory power. That is a judicial function." Social Security Board v. Nierotko, 327 U.S. 358, 369 (1946).

S. Rep. No. 97-284, 97th Cong., 1st Sess. 164-165 (1981).

The recently proposed amendment in S. 1716 thus raised the novel legal question whether Congress, having once extinguished the "common law," which by definition is judge made rather than legislatively enacted, can revive it through the Constitutionally condemned legislative technique of standardless delegation. In the context of Milwaukee II, the problem is analogous to whether the Congress, having pushed Humpty Dumpty off the wall, can put Humpty Dumpty together again.

But even if Congress could Constitutionally revivify the federal common law of tort or nuisance in the context of the rights of the States, two additional questions were posed by the intended assault on National Sea Clammers. The first, the question which the majority opinion expressly left open, is:

> whether the federal common law of nuisance could ever be the basis of a suit for damages by a private party.

69 L.Ed.2d at 445, n. 17.

The second is whether, if such private rights are nonexistent under federal common law, Congress can create federal "common law" rights and remedies as distinguished from creating carefully defined federal statutory rights and remedies.

Turning to the first of these questions, the whole tenor of the majority opinions in Milwaukee II and National Sea Clammers, with their emphasis on the rights of the States inherent in our federal union, renders the chances of this Court's answering the first question in the affirmative doubtful. Should the answer to that question be negative, then the second question must be faced. That question is whether Congress has Constitutional power to create "common law" (analogous to "subject matter jurisdiction"). This question is to be distinguished from which Constitutional limitations, such as those posed by the doctrine of "standardless delegation", exist as to how that power may be exercised if existent (which I discussed above in the context of the "amended" § 511(e)'s potential effects in the Milwaukee II context).

Turning to the conundrum of whether Congress can create "common law," which by definition is judge made rather than legislatively enacted, we start with the fundamental principle that the Founding Fathers denied the Federal Government the parens patriae powers of the British crown, carefully safeguarding that residium of sovereignty to the States. The traditional common law of tort and nuisance was thus retained by the States as incident to their police powers. As Professor Laurence Tribe has stated the principle in his treatise on constitutional law:

> Unlike their state and English counterparts, federal courts are not essentially common law tribunals. In the absence of specific congressional authorization, they lack the power to resort to a body of customary law, collected and defined in prior court decisions in order to resolve the cases which come before them.

Tribe American Constitutional Law § 3-31; See United States v. Hudson & Goodwin, 11 U.S. (7 Cranch) 32 (1812).

The nascent doctrine of federal common law of tort or nuisance is predicated on concepts of State sovereignty and federalism, rather than individual rights. References by the § 511(e) amendment's supporters to the antiquity of the federal common law were misplaced. It is State common law, rather than federal common law, that represents the unbroken line of judge made law and equity jurisprudence traceable to the sovereignty of the British crown. Indeed, it was respect for that same surviving essence of State sovereignty that gave rise in the first decade of this century to the doctrine of the federal common law of nuisance. See Comment, Requiem for the Federal

Common Law of Nuisance, 11 Envir. L. Rep. 10,191 (1981). ("The roots of the federal common law of nuisance reach back to the first decade of this century, when the Supreme Court for the first time acknowledged the jurisdiction of the federal courts to entertain cases brought by the states to abate pollution that has migrated across state lines . . . on the basis of rules borrowed from water apportionment cases and 'principles of federalism.'"); Cf. In re "Agent Orange" Product Liability Litigation, 635 F.2d 987 (1980), cert. denied, Chapman v. Dow Chemical Co., No. 80-1882 (Dec. 14, 1981). (No federal common law tort liability for suppliers of "Agent Orange").

What power then was the asserted or necessary jurisdictional basis for the amendment of § 511 that was posed in S. 1716? How can Congress legislate common law? It has no parens patriae powers. Moreover, Congress is not a court. Congress, a continent and three centuries removed, can not act like the House of Lords, treat the Supreme Court as an inferior Court of Appeal and order it to revise its ruling on the existence and extent of the common law.

Looking through form to reality, the recent Congressional attempt to extrapolate the Milwaukee I doctrine from transactions involving States' rights to those involving private individuals was an attempt to exercise the Commerce Power. Cf. Textile Workers Union v. Lincoln Mills, 353 U.S.

448 (1957) (labor relations "judicial inventiveness" based on Commerce power authorization). Thus the Senate's recent effort in S. 1716 amounted in substance to an effort through the amendment of the Clean Water Act § 511 to undercut National Sea Clammers and to achieve indirectly much of what was proposed specifically in S. 1480 in 1980 and rejected then by both Houses. If in reality Congress was proposing in S. 1716 to exercise its Commerce Powers, then as we noted above, the way in which it purported to exercise that power probably runs afoul of the Constitutional doctrine of "standardless delegation".

Moreover, the attempt raised profound policy questions that go to the heart of federalism. This session of Congress is also currently wrestling with the major policy problems presented when it exercises its Commerce powers in areas coincident with the traditional police powers of the states in another context: Federal Criminal Code legislation. It is helpful to recall that the landmark case establishing the absence of a general federal common law jurisdiction involved the specific question of whether federal circuit courts could exercise common law jurisdiction in criminal cases. United States v. Hudson & Goodwin, supra. The observations made by an American Bar Association Committee concerning the pending Federal Criminal Code legislation are equally apt to efforts here to exercise the Commerce Power to restore, create or expand federal jurisdiction in areas of tort and nuisance:

> Use of criminal sanctions as an incidence of exercise of the Commerce Power usually coincides with regulation of conduct within the traditional police powers of the state. The potential for conflicts on a day-to-day basis between federal and state jurisdiction in these circumstances is obvious. The broader implications for continuation of our federal system are less obvious, but equally real. Broad use of the Commerce Power to criminalize conduct raises philosophical and policy questions going to the heart of our federal system -- a point made eloquently by the late Justice Robert H. Jackson:
>
>> The decided drift is in favor of a strengthened federal government. I think we should draw a line between the necessity for central regulation of commerce, in the sense of finance and trade, and the necessity for diffused control of such things as affect civil liberties. Because while the federal government occasionally may make a great advance in the direction of civil liberties that the state government would not make -- at least in some states -- for many years to come, they can also make a very disastrous reversal and do more harm to civil liberties in one administration than a state government could do in a generation. . . . I think the potentialities of a federal, centralized police system for ultimate subversion of our system of free government is very great.
>
> The use of the federal Commerce Power to criminalize conduct that is also within the traditional police power of the states is a trend which has continued throughout this century at an accelerating pace. This expansion has occurred not only in the areas traditionally regarded as "common law crime" but also in the areas of health and safety governed traditionally by "common law nuisance." Some of this expansion has been inevitable because modern means of transportation and communication have severely handicapped or thwarted state detection of crime and state

> apprehension of criminals. In most instances, however, the expansion of concurrent federal jurisdiction has been attributable to Congressional mistrust of, or impatience with, state government.

Ad Hoc Committee on the Federal Criminal Code, *A Status Report on the Proposed Federal Criminal Code*, 36 Bus. Law. 1085, 1092 (1981) (report of ABA Section of Corporation, Banking and Business Law).

Finally, in addition to questions of (1) the existence of Constitutional legislative power to act, and (2) the Constitutionality of the proposed means of exercise of such alleged power through standardless delegation of power to the courts, there was yet another question of statutory construction posed by the proposed amendment that also has Due Process implications. That question involves *retroactivity*, a subject which has been the subject of extended and lively debate in our study group.

Would S. 1716's cryptic provision attempting to revivify the federal common law of nuisance have applied retroactively? In future *Milwaukee I* and *Milwaukee II* type situations where the plaintiff is a State, would the amendment have applied to action that occurred between the date of the 1972 Amendments to FWPCA and the date of enactment of the § 511 amendment? In the *National Sea Clammers* type situations where private parties are plaintiffs, if the federal common law could be successfully revived or created Constitutionally by S. 1716, would the amendment have applied to actions that occurred prior to the effective date of S. 1716? The statute would have been silent and the scant legislative history cryptic:

> The amendment, however, does not permit the litigants in those cases to reopen them by virtue of this clarification. In cases such as Milwaukee where the final determination has been made, the litigants must now live with it, unless there are legitimate reasons not created by this amendment to reopen or otherwise revive the suits.

127 Cong. Rec. S12246 (daily ed. Oct. 27, 1981).

If the section applied retroactively, it would certainly have changed the laws, to use the words of Senators Domenici, Bentsen, and Baker, "upon which industries and businesses have relied in assessing their exposure to liability and the availability of insurance when engaged in certain industrial activities." (S. Rep. No. 96-848, 96th Cong. 2nd Sess. 119 (1980). It would also have adversely affected existing insurers, compounding the problems faced by that industry in light of recent court opinions and rendering potential future insurance less likely or more costly. Cf. Keene Corp. v. Insurance Co. of North America, No. 81-1179 (D.C. Cir. Oct. 1, 1981) (interpreting "Comprehensive General Liability" policies to create insurer liability for asbestos injuries neither resulting from exposures nor manifesting disease during the policy period). The observations of these three Senators with regard to the third-party liability provision of S. 1480 were also apt as to S. 1716:

> The liability provisions of this bill alter two factors that affect business decisions: (1) the potential exposure of the company's assets to loss and (2) the availability of insurance to protect against these losses. The availability of insurance is particularly crucial to small and medium-sized businesses. However, insurance availability is largely dependent on developing the probabilities of the conditions under which payments would be made. Once these probabilities are defined, the availability, the coverage and the cost of insurance can be established. Thus, the analysis of both asset exposure and insurance availability largely hinges on the predictability of liability for a specific decision. Both of these factors appear to be adversely affected by the provisions of S. 1480.
>
> In general, the development and application of such concepts as strict liability, ultrahazardous activities, and joint and several liability to extensive third party damages take place over an extended time frame. During this period, asset risk assessment and insurance probabilities can be developed. Decisions can be made in an orderly manner. One result of S. 1480 is that it accelerates the development and application of these complex concepts. In doing so, it prevents the private sector decision-making process from being able to assess its liability risks.

S. Rep. No. 96-848, 96th Cong., 2nd Sess. 121 (1980).

The fundamental unfairness of changing the rules of liability retroactively and the lack of wisdom in acting in ignorance of the resulting consequences that would be visited upon businesses and insurance carriers were also recognized in 1980 in the Supplemental Views on H.R. 7020, of Congressmen Broyhill, Devine, Collins, Loeffler and Stockman. H. Rep. No. 96-1016(I), 96th Cong., 2nd Sess. 67-69, reprinted in [1981] U.S. Cong. & Ad. News 10272-10275. To paraphrase their views in this new context, the fact is that we do not know the scope of the problem. We need to have the facts and reliable information before we allow an emotional reaction to force Congress to create (or recreate) a federal common law liability of nuisance. This bill could create tremendous new burdens on the federal courts and impose onerous and unreasonable liability standards. It could impose an inflationary fee on industry and unfairly place the burden on today's companies, shareholders, or customers for practices, failures and shortcomings of yesterday's industrial producers. This raises very substantial Constitutional questions under the Due Process Clause of the Fifth Amendment.

For overall perspective in wrestling with all these difficult questions, we need to remember that the federal common law that this proposed amendment sought to revive as to State plaintiffs is largely duplicative of extensive statutory remedies available to the States under a host of federal statutes, including FWPCA. We should likewise remember that the federal common law it sought to create, probably de novo, for private plaintiffs would be duplicative of State common law -- and that was the common law these Senators and Representatives (cited above) undoubtedly had in mind in the 1980 debates over the Superfund Act. Finally the "transactional" costs imposed on society in having to create the substance of this duplicative federal common law system case by case would be enormous.

For all these reasons, Congress' recent experience with S. 1716 highlights some of the problems we have been wrestling with in our discussions.

4. For greater clarity, I think it would be better to deal with the Orthopedic Equipment Co. line of cases in the separate State law discussion suggested in 1 above.

5. I find your "Conclusion" troublesome for the following reason:

(a) The first sentence jumbles State and federal statutes together. Taking State law, the cases and other authorities you cite in Parts II, II and IV and the Orthopedic Equipment Co. line of cases do not support your conclusion. From what you have cited, I do not see how you or anyone else can say that State laws generally are deficient in that regard. However, I think a priori that your conclusion is correct with regard to interpretation of federal statutes. While the "federal common law" lines of cases you discuss in Part V essentially turn on the broader concept of the reconcilation of federalism and State sovereignty, they also deal with alleged implied statutory remedies which the Court rejected. The separate treatment of the federal "statutory construction" issue and the "federal common law" question, which I suggest in 2 above, would help highlight your valid conclusion as to the application of federal principles of statutory construction of federal environmental statutes.

(b) Your second sentence in the first paragraph fails to distinguish between State and federal law. Again, I cannot tell whether or not State law is different in this regard.

(c) I agree with your second paragraph.

(d) As to your final paragraph, it is a macro-conclusion that does not necessarily follow from what has preceded it in this particular memorandum. I know that you believe this, but is this the place to say it? I am reminded of Cato the Elder, who always exercized his right to add one more sentence to his every sententia: "For the rest, it is my opinion that Carthage must be destroyed." Does your voicing your ultimate sentiment here add or detract from this specific research work? I think it detracts because it is advocacy rather than scholarship.

Sincerely,

George Freeman

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cc: Superfund § 301(e) Study Group

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FILE NO.

DIRECT DIAL NO. 804 788-

February 19, 1982

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SUPERFUND STUDY
Presumptions, Presumptions

Dear Frank:

I regretted very much that a public service obligation concerning S. 1080 prevented me from attending the second day of our February meeting in New York. I have, however, since that time had the opportunity to read your memorandum of February 1 on rebuttable presumptions and also Karen Donegan's notes on your discussions the second day.

I thought it would be helpful to give you and other members of the Commission early on my initial reactions.

1. Purpose of the Presumptions. - Your discussion of this topic on page 8 of your memorandum is a generalized discussion which is more relevant to the role of presumptions in a tort system (tier two) than in the administrative,(tier one)

process which we have been discussing. You talk about easing the burdens of "plaintiffs" rather than easing the burdens on "claimants" or burdens on "administrators". Since Judge Breitel believes that we should consider the proper role of presumptions, and also what presumptions might be proper, in the second tier, I have no problem with that section of your memorandum. But it does not serve the needs of explaining why we need presumptions in the first tier.

I would like to turn then to what role should presumptions serve in the first tier. It seems to me that we all agree that the principal purpose of presumptions in the first tier is to facilitate expedited payments to "qualified", or "worthy", recipients. Two secondary purposes are to ease the burden on the administrators of the fund and to hold down overall transactional costs. If these are to be the sole purposes of presumptions in the first tier system, as we have envisioned it, then presumption (b) on page 2 of your memorandum is not needed.

But presumption (b) has obviously been included for yet another purpose. That purpose is to permit the fund to be replenished from time to time not only from general federal revenues (or alternatively from the receipts of a special federal tax on certain industries following the example of the Superfund Act and the Black Lung Act), but also from recoveries of amounts paid through subsequent (tier two) tort type actions against individual users, transporters or disposers who can be identified in this process (or their insurers). Thus presumption (b) lies outside the tier one administrative process. It is in fact a tier two tort action presumption. Putting that correct label on it, however, does not mean that I am automatically, inexorably opposed to replenishment of the fund from time to time by tort actions against "bad actors". Indeed, I think there is considerable merit to the arguments advanced by several of our other members that that is one way to lessen the burden of maintaining the fund on the general treasury (or the incidence of any special selected tax on industries). But if that replenishment policy is to be recommended, it brings me back four square to the major problems of retroactivity which we wrestled with most of the first day of our New York meeting and which we have discussed at length in earlier meetings of the Commission.

Presumption (b) in its present form lumps "good actors" and "bad actors" together and treats them equally. Thus it presents enormous retroactivity problems (this is true whether or not the word "solely" is retained in presumption (b), which is a separate issue I discuss below in Section 2). The way the "macro-presumptions" on page 2 are presently packaged all distinctions are swept away based on (1) "known or should have known" (the state of knowledge, or actual intent, at the time exposures occurred), (2) methods taken or not taken to avoid or minimize exposures in terms of the then current state of the art, compliance with all applicable regulatory requirements, etc. and (3) the times of exposure (our perennial "pre- or post-pronouncement" problem).

In this regard I invite your particular attention to Karen's enclosed notes of our February 4 meeting from pages 13 through page 26. Two themes emerge from that discussion. I (and I believe Judge Breitel joins me) am extremely worried about both the fairness and the practical effects on the system that would result from changing the rules of liability retroactively. I also believe that in the real world any principles applied by Congress in any so-called "first tier", administrative scheme would by analogy soon find their way into the second tier tort system (as Judge Breitel pointed out succinctly: "Legislative determinations are a source of common law principles"). Karen's notes on your second day show that this second point is a point also of great concern to Jeff O'Connell and was the subject of an extended discussion between Jeff and Richard Gerry.

If the only presumptions that ultimately emerge on tier one are sound ones developed through the deliberative process and meeting the criterion discussed below, I would have no trouble with their being used on tier two. Indeed, it would be difficult to justify their rejection in tier two. There is no social benefit to requiring the same factual matters to be relitigated de novo time and time again. But bad presumptions based on bias not fact would be disastrous to tier one and catastrophic on tier two.

2. The Criterion of Truth. - I believe it is quite important to testing the validity of any legislatively or administratively determined presumptions to focus on the criterion for valid presumptions. That criterion can also be used to judge the efficacy and fairness of any system for the future formulation of presumptions.

In my view, presumptions should be employed only where they are a valid reflection (a shorthand summary if you please) of what is generally true. Since absolute truth is often elusive in the areas we are discussing, we often have to settle with the second best -- the prevailing views of the medical or scientific experts. But that is far better than the third best, legislative fiats that reflect policy determinations as to who should win (biases) rather than what is most likely to be true, objectively. One of the major problems with the Black Lung Act statutory presumptions is that while some of them meet this criterion, others do not and the presence of the latter has well nigh wrecked the system. Judge Breitel keeps reminding us continually that in the common law the strengths of presumptions vary and vary usually directly in proportion to the reliability of their perceived nexus to the truth.

Measured by the criterion of truth, the word "solely" in your proposed condition (3) cannot pass muster across the whole array of hazardous materials and diseases and injuries envisioned by your proposal. While it may well be a valid assumption for the rare form of cancer that can be closely correlated to asbestos inhalation, that single causal linkage is clearly exceptional. As I understand it, cancer may often be the result of multiple factors acting together; heredity, diet, radiation exposures, climate, as well as what we breathe, eat and touch. One of the major problems with the implicit "solely" criterion in the black lung presumptions, for example, is that it ignores the differences between underground and above ground exposures and between exposures of smokers and non-smokers. What is really called for in presumptions in those areas is probability analysis. I believe that in fact is what you have in mind in paragraph 3 at the bottom of page 4 of your memorandum.

The farther the presumption departs from reality, the more arbitrary and capricious it becomes. And the more dubious presumptions that are built into a statutory scheme, the more unfair it becomes.

The Supreme Court once said:

> "res judicata renders white that which is black, and straight that which is crooked... No other evidence can afford strength to the presumption of truth it creates, and no argument can detract from its legal efficacy." (Jeter v. Hewitt (1859), 22 How 352, 364, ____ U.S. ____, ____)

That should not be said of any presumptions written into any statute enacted pursuant to our recommendations or subsequently adopted under any administrative scheme we recommend.

I have pointed out in our earlier discussions, that we must be careful in righting wrongs perceived to flow from incomplete internalization of the social costs involved in the generation and disposal of hazardous wastes in the past, not to go overboard and impose a whole new set of non-internalized social costs -- loss of trade, unemployment, higher consumer prices -- that are equally capriciously and unfairly distributed on other segments of society.

3. The Relationship of Legislated Presumptions and Administratively Determined Presumptions. - Your memorandum on page 2 sets forth what I will characterize as the "macro-presumptions" which would be written directly into a federal statute creating the first tier operation. On page 3 you go ahead to also provide that the federal agency involved with the fund could issue "presumption documents" that would "provide evidentiary data showing that specific hazardous substances or wastes caused specific diseases or illnesses".

Let us turn to the macro-presumptions first, and see what they mean. We are confronted initially with the question of what is a "hazardous waste" as used in conditions (1) and (2). Our decision in earlier meetings to provide tier one relief for only "truly hazardous substances" (as distinguished from substances which are characterized willy-nilly in other federal legislation as "hazardous" or "hazardous waste" or "toxic" or "toxic wastes" etc. or are characterized as such by some existing federal agency under existent statutes) does not solve this problem. (See the minutes of the meetings of September 11-12 at pages 5 and 15 and December 17-18 at pages 46-50).

The identifications and the linkages, instead, should be done through the process you presently envision only as a means to supplement an initial statutorily mandated list.

As I had envisioned how presumptions might operate and perform a valuable and necessary function in tier one (based on our earlier discussions when Fred Anderson was present), specific substances would be linked with specific diseases through an administrative process (using hybrid rulemaking procedures as distinguished from "adjudicatory" or "bare bones notice and comment" type procedures). The listing of a substance and its linkage with specific diseases or injuries would be predicated upon the best scientific and medical knowledge then available. This would give persons injured and the administrators of the fund a predetermined, "packaged", means of readily satisfying conditions (1) and (2) on your page 2 and the "known to result" criterion in your condition (3). If, on the other hand, we leave (a) what is a "hazardous waste" in condition (1) and (b) "which is known to cause injury or disease" in condition (2) and (c) "which is known to result" in condition (3) open for case by case determination in tier one through administrative procedures then we will have simply provided in essence two separate forums for tort actions. Tier one would be a glorified small claims court or a compulsory arbitration panel.

The words "or which can be shown to result" in condition (3) further complicate this problem. They have no real place in an administrative tier one system, but rather reflect the tort system origin (and probable application) of this concept. I would delete them entirely.

The way I believe the tier one system could work and still be fair would be to provide a separate, federal agency, with scientific and medical expertise available to it and with no conflicts of interests over funding, and authorize it to hold a series of rulemakings to summarize evidentiary data showing that specific hazardous substances or wastes cause specific diseases or illnesses. This would be done generally along the lines which you provide on pages 3 and 4 of your memorandum.

Careful preparation of a Presumption Document in a generic rulemaking by a fair and impartial agency (as distinguished from a "mission oriented", e.g. biased, agency) where the best scientific and medical evidence currently available could be mustered and tested through fair procedures would be a great step forward. Back in the early 1970's when the licensing of nuclear power plants was literally at a standstill because generic health and safety issues under the Atomic Energy Act and generic National Environmental Policy Act issues were being adjudicated over and over again in individual plant licensing cases, I urged their removal from such forums and resolution in generic rulemakings. A copy of my 1974 testimony before the Senate Governmental Operations Committee setting forth the merits of such rulemakings is attached.

I have to add to that, as I have pointed out in our earlier sessions, that the procedures followed in such rulemakings should be the hybrid type, which may or may not now be required by existing case law in light of the uncertainties created in the wake of the Supreme Court's decision in the Vermont Yankee case (see pages 28 through 39 of my enclosed testimony before the Senate Judiciary Committee on S. 1080 and pages 93 through 106 of the Judiciary Committee's Report on S. 1080, also enclosed).

Specific hazardous substances and their related specific diseases or illnesses identified by these series of rulemakings would thus be the hazardous waste and the known injury or diseases for purposes of your proposed three conditions necessary to give rise to presumption A for purposes of payment from the tier one fund.

If we decide that we should go further, and my present inclination is that we should, and provide for replenishment of the fund from bad actors, I would permit that to occur under existing state common law, leaving that substantive and procedural law, like the balance of tier two, unaffected by federal legislation. State common law likewise should not be prejudiced by pronouncements in our report as to what that common law ought or ought not to be, other than the view which we have all apparently agreed upon that the discovery rule is clearly the preferable rule as to when any statutes of limitations should begin to run.

If the majority insists on going further, however, then I think we must come to grip with the extraordinary retroactivity policy questions and the balancing of social equities questions which Judge Breitel, Jeffrey O'Connell and I have continually raised throughout our discussions.

I thought it important to communicate these major points to you immediately and not to delay them until I have had the opportunity to consider the rest of your memorandum. I will probably give you some supplemental views in the near future.

Sincerely yours,

George Freeman

George C. Freeman, Jr.

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FILE NO.

DIRECT DIAL NO. 804 788-

March 2, 1982

Superfund Study
The Dimensions of the Problem:
A Further Plea for Timely Information from Justice and EPA

Dear Jim:

The enclosed article from today's New York Times prompts me to urge you, as our chairman, to inquire as to the status of the Justice Department's response to Frank Grad's letter to Assistant Attorney General Carol Dinkins of December 18, 1981.

At meetings of our group I have voiced my concerns about our lack of knowledge about the probable dimensions of the subject area of our study. While our primary mission is legal scholarship and analysis and we are not charged (nor are we equipped) to be a fact-finding body, we cannot be oblivious of the facts -- or more appropriately, the lack of facts -- in making our report to Congress.

We have very little reliable information about how much truly toxic wastes are out there and how many persons may or may not have been exposed to them in circumstances that have caused, or are likely to cause, death, serious bodily injury or disease.

When we discuss the adequacy or inadequacy of state statutory and common law to compensate actual or potential victims of improper generation, transportation or disposal of such wastes, we do not know whether or not we are talking about more than 1,000,000 persons or less than 10,000. While for an injured individual such numbers are irrelevant, those numbers are relevant to our study in a number of ways. Four that come immediately to mind are:

1. The adequacy or inadequacy of existing State law. -- If relatively few people have in fact been injured by (or even exposed to) toxics, the fact that few cases for damages have been successfully brought should not be regarded as evidence that the current law is inadequate or unfair. As we have discussed in the past, the relatively greater number of settlements may reflect a variety of other considerations, uncertainty as to the law, a desire to avoid adverse publicity, etc., rather than admissions of fault or recognitions of valid claims.
2. The need for, and scope of, a first tier system. -- If very few persons have been actually injured, or are likely to be injured in the future, by toxic wastes, is it necessary to set up a new nationwide administration system to compensate them for

medical expenses and lost wages? For persons exposed in the past, not only are aggregate numbers relevant, but also numbers bearing on what percentage of those injured are already being compensated for medical expenses and lost wages through workers' compensation, unemployment compensation, Medicare, Medicaid, Black Lung or Social Security disability payments. If there are very few who have been injured from wastes disposed of in the past and not compensated from one or more of these sources there might be no practical need for having to resolve the hard problems of retroactivity with regard to ongoing active sites we have discussed from time to time.

3. Funding of the First Tier System. -- Clearly the number of potential claimants and some ideas as to the scope of the aggregate amount of their claims are relevant to how any first tier system should be funded. I have made the point previously that we do not know enough about total potential costs to know whether funding of any such system should come from the Federal treasury or a special tax on selected industries. Absent such information, we also do not know which industries could fairly be subject to such a tax.

4. Proof of Causation and the Validity of Presumptions. -- The number of persons with cancer caused "solely," or indeed primarily, by exposure to truly toxic wastes, whether during manufacturing, transportation or disposal, as compared to the number of persons with the same kind of cancer resulting from other causes is certainly relevant to whether the presumptions in Frank Grad's memorandum of February 1, 1982, are appropriate. The New York Times article, like the enclosed Summary of the Office of Technology Assessment's Assessment of Technologies for Determining Cancer Risks from the Environment, dated June 1981, strongly support the conclusions expressed in my letter to Frank Grad of February 19.

The little information that has been available to us on the national scope of this problem (or potential problem), has been largely in the form of articles from magazines, newspapers or law reviews. Most of them are highly speculative. They (1) assume that there are thousands of waste disposal sites throughout the country, (2) assume that highly toxic wastes have been improperly disposed of at many of them, (3) assume that wastes have injured or are injuring thousands of people, largely through cancer, and (4) assume these people are not being, or cannot be, properly compensated under our present legal system. Clearly many of the proponents of the federal "third party" liability provisions proposed in S. 1480 in the last Congress must have believed such assumptions were true. The Six Case Studies Report prepared for the Senate Environment and Public Works Committee explains how the six cases were selected from "nearly 3,600 such incidents of toxic substances-related pollution" (page xii). The Senate Report stated:

> Modern chemical technology has produced miracles which have greatly improved this Nation's standard of living. But the increased generation of hazardous substances associated with these new products has proved to be a serious threat to our Nation's public health and environment.
>
> The legacy of past haphazard disposal of chemical wastes and the continuing danger of spills and other releases of dangerous chemicals pose what many call the most serious health and environmental challenge of the decade. Chemical spills capable of inflicting environmental harm occur about 3,500 times each year, and an estimated $65 to $260 million is needed to clean them up. More than 2,000 dumpsites containing hazardous chemicals are believed by the Environmental Protection Agency to pose threats to the public health. The costs of containing their contents is estimated to be an average of $3.6 million per site.
>
> * * *
>
> The Environmental Protection Agency estimates that 57 million metric tons of hazardous wastes are produced annually in the United States, or about 600 pounds of hazardous wastes per American in a year, and that this amount grows at a rate of 3.5 percent per year. More than 90 percent of this waste is believed to be disposed of in environmentally unsound ways. These unsound disposal methods include hazardous land disposal, improper storage of dangerous substances and illicit dumping.

The effects of poor disposal methods and abandoned waste disposal sites can be the contamination of surface water and groundwater, causing contamination of drinking water supplies, destruction of fish, wildlife and vegetation, and threats to public safety due to health hazards and threats of fires and explosions.

Because there is no required reporting or data collection system in any one centralized government agency, the evidence sustaining the conclusion that a grave problem exists is best presented by anecdotes and a variety of studies.

* * *

A variety of recent studies and surveys highlight the scope of the problem:

Using existing documentation, the Agency identified some 250 hazardous waste sites involving damages or significant threats of damages. Among the reported incidents were 27 sites associated with actual damages to health (kidneys, cancer, mutations, aborted pregnancies, etc.), 32 sites which have resulted in the closure of public and private drinking water wells, 130 sites with contaminated groundwaters and 74 sites where natural habitats have been damaged and are adversely affecting indigenous species.

As of June 1, the Agency's Hazardous Waste Enforcement and Response Task Force has identified 5,790 hazardous waste sites which were to be investigated to determine whether problems requiring cleanup exist. The Agency had inspected 1,001 of these sites, and concluded that remedial actions are warranted at 342 sites. No action was deemed necessary at 221 sites, and investigations were continuing at the remaining sites inspected.

* * *

A Department of Health and Human Services' report released in June, 1980 concluded that "the scope of the health problem that could derive from chemical waste dumps cannot be precisely estimated at present. The problem could be enormous".

The preliminary findings of a joint States/EPA survey of pits, ponds and lagoons used to treat, store and dispose of liquid wastes identify 11,000 industrial

> sites with 25,000 such surface impoundments. At least one-half of the sites are believed to contain hazardous wastes. The survey found that virtually no monitoring of groundwater was being conducted and that 30 percent of the impoundments, or 2,455 of the 8,221 sites assessed, are unlined, overlie usable groundwater aquifers and have intervening soils which would freely allow liquid wastes to escape into groundwater.

S. Rep. No. 96-848, 96th Cong., 2d Sess. 2-5 (1980).

Where are those reports? What has EPA, Justice, or the Department of Health and Human Services done since 1980 when these reports were made available to Congress to verify, update or supplement them?

I do not know, and I believe that none of us knows, whether these assumptions of yesteryear are true or false. I believe that the "known, or ought to have known" standard of care applies to us in fashioning our report, and this imposes on us an obligation to make a best effort to find out what is the best information currently available. The two federal agencies currently charged with the administration and enforcement of recent Federal statutes in this area: Superfund, RCRA, FWPCA, CAA, the Safe Drinking Water Act, etc. are the Environmental Protection Agency and the Justice Department. Indeed, EPA has a Superfund Program Evaluation and Tracking System that is now functioning and should have considerable information relevant to our request. Frank Grad's letter, formulated during our discussions in San Diego, essentially asks that both agencies supply us the same kind of information on this subject that they would supply to a Congressional committee focusing on this problem, except of course privileged information. But at a minimum it is everything either agency would have to supply under a Freedom of Information Act request. We are, after all, a Congressionally created group charged by statute with a duty to investigate and report to Congress. If our report is based on factual assumptions or predicates that are not supportable by the best information now available to these two key Federal agencies, our labors will have been in vain and our report worthless.

Time is running out. If we are to meet our projected June 30 deadline, we need this information now in order to evaluate it and then factor the results into our comments on Frank Grad's draft, which is promised by March 15, and any subsequent formulation of our separate concurring or dissenting views.

I urge you, as chairman of our group, to urge Justice to respond promptly to Frank's letter and to respond in a form that will be readily intelligible. I believe that we should receive a response that is the functional equivalent of what Justice and EPA would provide Congress in the form of public testimony and related exhibits should Congress, in response, to our report, schedule hearings later this year. Clearly Justice and EPA should not let us believe one thing in March and then Congress another in July.

If technicalities of multiple review and clearance preclude our getting these materials together with a succinct summary in the immediate future, then we should request a special meeting where we can be briefed orally by the principal persons in these agencies charged with responsibility for this subject area. If agreeable to you, I would be glad to see if I could set up a meeting for you, as our chairman, with Attorney General Smith and EPA Administrator Anne Gorsuch to discuss this matter before it is too late.

Sincerely yours,

George C. Freeman, Jr.

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File No

Direct Dial No 804 788

March 10, 1982

SUPERFUND
Thoughts on Strict Liability, International Competition, Transitions, Retroactivity and Practicality

Dear Frank:

Despite a very heavy schedule on other matters, I have been trying to do some homework on theories of liability, particularly on notions of strict liability advanced or discussed by the learned authorities cited in your memorandum and others. I have been particularly interested in justifications for liability without fault in terms of economic theory cited in these authorities. Being a Yale Law graduate, I went back and started with my old mentor Fleming James and then progressed to Guido Calabresi, moving thereafter on to articles by those associated with other distinguished law schools. This review prompts several observations.

1. Under all the economic theories advanced to justify "strict liability" (or perhaps I should say to define it), all except the "Deep Pocket" theory appear to recognize that there must be a "netting out" or "balancing" process (taking into consideration effects on consumer prices, firms at the margin

forced out of business, oligopoly or monopoly created, unemployment, reduction in consumption of a product and the availability of substitutes, etc.). The results of this analysis may or may not justify the establishment of a strict liability rule (and where adopted, its application) under several of the economic and related ethical theories underlying these concepts of strict liability.

> Strict liability has never meant the party held strictly liable is to be a general insurer for the victim no matter how or where the victim comes to grief. General insurance was not the rule in classical instances of strict liability, such as ultrahazardous activities, or in legislatively mandated instances, such as workmen's compensation, and it is not the rule in recent instances of application such as products liability. The questions which the courts now find themselves asking (and being asked) in the new areas of application, such as products liability, involve the same basic issue as did equally difficult questions faced in traditional areas of strict liability, which were couched in words such as "natural or unnatural use" and "arising out of and in the course of employment." The issue is just where strict liability should stop.[1/]

The objective of an "enterprise liability" rationale to

[1/] See, e.g., Calabresi and Hirschoff, Toward a Test for Strict Liability in Torts, 81 Yale L.J. 1055, 1056 (May 1972).

justify imposition of a strict liability rule, for example, is deterrence through internalization of costs. If legal liability rules operate in such a way as to externalize rather than internalize costs we have overdeterrence. The same result occurs in a multiple cause situation in which arbitrary presumptions force a hazardous waste handler to pay costs of cancer largely attributable to the victim's own activities, or those of third parties. A system in which "responsible firms or the entire industry would be liable for costs greatly in excess of the demonstrated costs of the wastes. . . would be erratically punitive."[2/] Such effects would be exacerbated if today's industry were saddled with liability for actions which, under the laws applicable at the time the acts occurred, were neither unlawful nor tortious nor a nuisance.

This is what I have been saying in more primitive terms during our past meetings. Thus I have opposed changing the rules of the game to impose liability on persons engaged in economic activity retroactively on grounds of "fundamental fairness" (and with due respect to your contrary views, Constitutionality). I find myself in good company on this point with many of the authors who have advocated "strict

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2/ Note, Allocating the Costs of Hazardous Waste Disposal, 94 Harv. L. Rev. 584, 600 (1981).

liability" in the past. As I read them, a strict liability rule generally should apply only to activities occurring after those who are in the particular business have been told that henceforth that will be the new rule of the marketplace. If businessmen are worried about the greater risks this changed standard creates, they can phase out of the business, and those who choose to remain will raise their prices. If too many get out in the short run, prices will continue to rise as the perception of risk rises and new higher risk (and more costly) capital enters the field. To impose liability retroactively penalizes an industry for its lawful, non-negligent conduct of the past. It makes today's consumers of the industry's product pay costs which were not internalized in the price of the product to yesterday's consumers.

I would like to emphasize when I talk of the problems of retroactivity in defining or applying "strict liability", I am not complaining about the strict liability rule which I perceive to be the currently extant common law of most States -- that persons who conduct an abnormally dangerous activity will be held liable, under certain circumstances, for injury or damages that it causes off of their property without any requirement of proof of negligence. I have no quarrel with Fletcher v. Rylands and its American counterparts such as Sullivan v. Dunham, 161 N.Y. 290, 55 N.E. 923 (N.Y. Ct. App.

1900), nor am I hostile to subsequent developments in the common law of our States that are based upon recognition of "the potentialities of tort liability as a means of distributing losses in the socially desirable manner contemplated by more direct methods of social insurance."[3/]

But in the context of these cases, strict liability is normally not thought of as inexorable and mechanical -- a judicial slot machine where the plaintiff always wins. Admittedly where applicable, the scales have been weighted, but the final balance remains to be struck case by case. Thus, the plaintiff still must prove causation, and the defendant can raise affirmative defenses that have to be weighed in the balance.

Thus both the decision to apply this legal standard to an area of activity as a general matter and its day to day application in that chosen field of activity are both governed, or should be governed, by notions of what is socially desirable, generally and specifically.

Most courts and commentators have not believed that the "deep pocket" was the sine qua non of social desirability and that having found the pocket ends the matter. Rather they have recognized that effects, both primary and secondary, on

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[3/] Shulman & James, Cases on Torts, viii (The Foundation Press, Inc., Chicago, 1942).

society, as well as ideals of fair treatment for individuals, have to be brought on to the balance. Thus, to me retroactive imposition of costs on an industry may be socially desirable if those costs can be spread to one portion of society through insurance (other insureds) and/or another through increased prices (consumers). Once a strict liability system, such as workmen's compensation, respondeat superior, etc., emerges from a successful transition phase, that is what normally occurs. But I want to be relatively certain that cost spreading is what will in fact occur, before I sign off on initiating such a process. Likewise, I want to know the probable social costs of the transition itself, its probable duration, and the likelihood of its successful termination.

2. I have been struck with the relatively little attention paid in these analyses to the effects of international trade. There is much discussion about the presence or degrees of competitiveness or monopoly in a particular industry, but the discussions focus on potential effects of the theory within the confines of our borders. Speculations as to effects on consumption levels, utilization of resources, degrees of competition, survival of enterprises, market shares, employment, etc., often apparently do not take into account foreign competition or, if so, only implicitly.

3. But even in an implicit "U.S. only" context, some authors make the point that when in the business cycle costs previously not internalized are imposed on an industry by a change in the law (whether through workmen's compensation statutes, products liability statutes, etc. -- and in a somewhat different context, costs of clean-up of environmental pollution) may make the difference in the ability or inability of firms within the industry to pass on those costs to consumers. Where the firms cannot pass the costs forward, the indirect social effects of an ineffective attempt at "internalization" of costs may produce socially undesirable "external" costs in other areas.

To illustrate, Calabresi makes the point that when you start the transitional phase to put the new system into effect may affect its long-term workability. His initial landmark article in 70 Yale L.J. 499 (1961) makes it clear that such a transition can best be put into effect when business is booming rather than in periods of recession or depression.

Along this line, the enclosed article on the current problems confronting the national steel industry furnishes a backdrop for focusing on this aspect of the problem in concrete terms. In industries like steel, where U.S. producers are operating well below their capacity, the likelihood that further internalization of costs will occur if strict liability is imposed on them appears remote.

The problem of "internalization" in an industry like steel is compounded because foreign competition has already made serious inroads into the U.S. markets. At present we have no international mechanisms for forcing similar internalization of equivalent costs in foreign countries on foreign producers whose goods are sold in this country. In this situation, the U.S. "external" costs can not be shifted forward to U.S. consumers by U.S. producers. These costs would have to be borne solely by the U.S. firms, their employees and the owners of U.S. resources. The social risk of creation (or the worsening) of a chronically sick U.S. industry or its elimination would increase as these aggregate costs increase.

If these costs on persons injured within the U.S. are to be transferred to someone else, then a special tax on total U.S. consumption of the products of that industry, those produced here and abroad, should be considered. At least this would not discriminate against U.S. producers, U.S. labor and U.S. resources and in favor of their foreign competitors.

4. The three points above do not lead me to conclude, however, that if substances deposited in new or ongoing active sites in the future injure persons exposed to them in ways that could not have been foreseen as dangerous, we should let the loss lie wholly on those persons injured. The governing criterion in my view is what is the most desirable way for

society to share all or a part of those losses. That is why I have stressed the importance of being reasonably certain that the bundle of substantive standards and procedures put together in any final recommendations for new and ongoing active sites will permit private insurance to be available. Here, I differ strongly with those who say we can assume insurance will be there no matter what or others who say if insurance is unavailable that fact is determinative of the activity's social undesirability. If insurance is not likely to be available (or available only at prohibitive costs) then there are three alternatives: first, leave the risk of virtually unlimited liability for future damages from now unknowable causes on the persons who might engage in the enterprise; second, have the government pick up all the costs; or third, readjust the "package".

There are several ways to "split the package." One that has been suggested is to split the costs up and leave some (notably pain and suffering) with the person injured and put some (medical costs and loss of wages) on either the enterprise or government, or both, just as we propose for the "orphan site" situation. Another is to make pain and suffering recoverable only where "known or should have known" is applicable. Another is to abandon the joint and several notion and impose liability only on the person (generator, transporter or disposal site operator) who was in possession of the substance at the time it caused the injury, with the government picking up post-closure liability after a stated period. (This was the Western European precedent I mentioned at our November 13-14, 1981, meeting).

The alternative of leaving the magnitude of the risk so high that it completely deters persons from engaging in the enterprise (where it is socially necessary or beneficial) is unacceptable to me. I would opt instead for one of the remaining alternatives. But I presently need to know more about them before expressing preferences.

Sincerely yours,

George

George C. Freeman, Jr.

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Enclosure

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April 12, 1982

FILE NO.
DIRECT DIAL NO. 804 788- 8365

Gentlemen:

I have only just begun to review Frank's discussion draft. As expected at this time, very little discussion has been devoted to the insurance implications of the liability regime recommended. Frank's cover memorandum confirms that we still need to give the subject of insurance law and insurance availability major consideration.

As you will recall, the mandate for our study in CERCLA. § 301(e), includes the requirement that

> (3) As part of their review of the adequacy of existing common law and statutory remedies, the study group shall evaluate. . .
>
> (E) the scope of liability under existing law and the consequences, particularly with respect to obtaining insurance, of any changes in such liability.

42 U.S.C. § 6921(e)(3)(E).

This is a very important aspect of our study, and it is also directly related to features of the liability system established by the present Superfund Act, several key ongoing rulemakings and a number of other statutorily mandated studies designed to evaluate the effects of that legislation.

These include:

(1) Proposed RCRA Regulations

A considerable controversy over hazardous waste facility liability insurance has existed for some time. Section 3004(6) of the Resource Conservation and Recovery Act of 1976 requires EPA to establish financial responsibility standards applicable to owners and operators of hazardous waste management facilities "as may be necessary or desirable to protect human health and the environment." 42 U.S.C. § 6924(6). As I indicated at several study group meetings, the Reagan EPA suspended the Carter Administration's financial responsibility regulations that had been promulgated on January 12, 1981. EPA last week, on April 7, 1982, issued its notice of some revised financial requirements for owners and operators of hazardous waste treatment, storage and disposal facilities. 47 Fed. Reg. 15032 (Apr. 7, 1982). This notice, however, deals only with closure and post-closure financial assurance requirements and simply states that third-party liability insurance requirements "will be the subject of a separate Federal Register notice to be published shortly."

(2) Other Superfund Studies

Congress obviously was intensely concerned, when it passed the Superfund Act, about the implications of that legislation for the overall workability of existing and modified liability systems. In fact, our study of the implications of changing state liability rules is only part of the overall evaluation which Congress mandated of the liability system existing after the passage of the Superfund Act. Section 301 of the Superfund Act requires the President to recommend changes in the Superfund Act concerning "liability and liability limits, and financial responsibility provisions for the Response Trust Fund [the "Superfund"] and the Post-Closure

Liability Trust Fund"; it also requires the EPA (in consultation with Treasury) to "report on the necessity for and the adequacy of the revenue raised, in relation to estimated future requirements, of the Post-Closure Liability Trust Fund"; and, most directly relevant to the insurance part of our mandate, the section requires the President to conduct a study to determine

> (1) whether adequate private insurance protection is available on reasonable terms and conditions to the owners and operators of vessels and facilities subject to liability under Section 107 of [the Superfund] Act, and (2) whether the market for insurance is sufficiently competitive to assure purchasers of features such as a reasonable range of deductibles, coinsurance provisions and exclusions.

Superfund Act, § 301(b), 42 U.S.C. § 6921(b). Furthermore, Section 107(k)(4)(A) of the Superfund Act requires the Treasury Department to study the "feasibility of establishing or qualifying an optional system of private insurance for post-closure financial responsibility for hazardous waste disposal facilities. . ."

Just last week, the Treasury Department released a report in compliance with these last two mandates, entitled Hazardous Substance Liability Insurance. The Justice Department has mailed excerpts to each of us, but I was also able to obtain a complete copy by sending someone to the Treasury Department to xerox it.

The Treasury Report and the Grad Draft

In its present form, Frank's discussion draft currently assumes insurance availability under existing law as well as under the group's recommended changes.

> The required liability insurance [mandated under the early 1981 version of RCRA regulations], which will need to be provided in 1983, will be available to cover claims for personal injury and property damage. (See page 106.)

The insurance company executives and lawyers I have been meeting with tell me that this is, at best, an overstatement and also that, if available, the costs will be quite substantial. Part Two of the Treasury Department report is directly relevant to this point:

> Taken together, the liability and financial responsibility provisions of CERCLA have been cited most frequently by both potential insurers and insureds as posing potentially serious impediments to the availability of adequate insurance coverage at reasonable costs. Specifically, liability under Section 107 appears to be subject to interpretation by the EPA and the Department of Justice as embracing a "strict, joint and several" liability standard as well as the imposition of liability on a "retroactive" basis. This amounts to bringing together and unifying in a single statute various liability principles which heretofore have appeared singly or in otherwise discrete contexts. (See page 81.)

This government study certainly does nothing to alleviate my ongoing concerns about insurance availability under the current liability regime and the changes in it we are considering.

Sincerely,

George C. Freeman, Jr.

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May 17, 1982

FILE NO.

DIRECT DIAL NO. 804 788- 8365

Superfund

Gentlemen:

I thought that you might find the following enclosures helpful:

1. Karen Donegan's minutes for me of our April 15 and 16 meeting (I understand that the Justice Department minutes mailed out on Friday only cover the first day);

2. Fred Light's memorandum to me of May 14, which covers the "new" point (possible preemption of State common law by the Superfund Act) raised by the letter we recently received from Senators Stafford and Randolph; the "old" point (Milwaukee, Sea Clammers and Federal common law) was covered in Frank Grad's memo of December 1, 1981, and my letter of December 16, 1981 to him commenting on it.

I would like to point out that the last enclosure also goes on its Section IV to discuss a major matter outside the scope of the two Senators' letter. Fred addresses the tough question of statutory interpretation of the current Superfund Act touched upon on the second day of our April meeting: Does the Superfund Act tax preempt state superfund type taxes? That issue has already been raised in litigation in New Jersey. In addition to summarizing the arguments that have been made in that pending litigation, Fred has a fairly thorough discussion of the constitutional problem presented if the Superfund Act is interpreted as intended to preempt the special New Jersey tax.

Fred's memorandum strengthens the case for our responding affirmatively to the suggestions made by our friends from Minnesota at our last meeting for the Group's report to advise Congress of the current problem of the States in actually getting Super funds from EPA for expedited clean up. They said that States that want to move ahead promptly with clean up are currently in a bind if EPA continues to hold up the prompt dispersal of the Fund to the States. Should EXXON prevail in the current New Jersey legislation, both on the statutory construction and the constitutional issues, the only source of funds at the State level might be general tax revenues.

If the preemption was intended and is constitutional, the underlying policy premise would be that Congress created an exclusive funding mechanism that would basically solve the State's major clean up problems in this area and that Congress thought a duplicate tax system would impose unnecessary burdens on interstate commerce. EPA's current pace of response to State requests for clean up funds would appear to contradict that premise.

Sincerely,

George Freeman

George C. Freeman, Jr.

Members of the § 301(e)
Superfund Study Commission

Enclosure 1 - Karen Donegan's Minutes of April 15-16, 1982

Enclosure 2 - Fred Light's Memorandum of May 14, 1982

MEMORANDUM

TO: George C. Freeman, Jr., Esq. **DATE:** May 14, 1982

FROM: Alfred R. Light

SUPERFUND 301(E) STUDY

RESPONSE TO SENATE ENVIRONMENT AND PUBLIC WORKS INQUIRY TO SUPERFUND 301(E) STUDY GROUP

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SUPERFUND 301 (E) STUDY

RESPONSE TO ENVIRONMENT AND PUBLIC WORKS COMMITTEE INQUIRY TO SUPERFUND STUDY GROUP

The Superfund Section 301(e) Study Group discussion draft of April 5, 1982, and our supplement to it address the topic of the non-existence of federal common law after the passage of comprehensive federal regulatory legislation. See, Draft, Part III, at 66-76. The rationale of the United States Supreme Court confirming that non-existence applies to air pollution, hazardous waste disposal and other environmental areas outside the specific water pollution context of the Milwaukee [City of Milwaukee v. Illinois, 451 U.S. 304 (1981)] and National Sea Clammers [Middlesex County Sewerage Authority v. National Sea Clammers Association, 453 U.S. 1 (1981)] cases. As you explained in detail in your letter to Professor Grad of December 16, 1981, Congress must provide an express private right of action under a comprehensive regulatory scheme if it wishes to provide for any private right of action. Thus, it is unnecessary to discuss this matter again in detail.

I. THE CONGRESS CANNOT CREATE A FEDERAL COMMON LAW THROUGH THE DEVICE OF A SAVINGS CLAUSE AND DID NOT DO SO IN THE SUPERFUND ACT.

However, one preliminary issue in this regard merits some further explanation--the non-existence of an implied right of action under the Superfund Act. In this respect, Senator Stafford's reported remarks about the Superfund Act are simply misplaced. Neither S. Rep. 96-13 (the Six Cases study) nor S. 1480, as introduced or as reported, nor the report on S. 1480 (S. Rep. 96-848) nor the final compromise Superfund bill (P.L. 96-510) explicitly address the existence or non-existence of a federal common law of tort or nuisance. The section of the Superfund Act to which Senator Stafford has referred in public statements, section 302(d), 42 U.S.C. § 9652(d), simply provides:

> Nothing in this Act shall affect or modify in any way the obligations or liabilities of any person under other Federal or State law, including common law, with respect to releases of hazardous substances or other pollutants or contaminants.

That provision does not create or induce a federal common law by the statutory technique of a savings clause. Such an "implied right of action" created in lieu of an express statutory remedy is precisely the creature condemned in the Milwaukee and National Sea Clammers cases. And, as you noted in your letter to Frank Grad of December 16, 1981, it is highly unlikely that Congress could directly legislate the creation or revivification of "common law."

This is not new constitutional doctrine. In *Erie Railroad Co. v. Tompkins*, 304 U.S. 68, 78 (1937), Justice Brandeis noted, "Congress has no power to declare substantive rules of common law whether they be local in nature or 'general', be they commercial law or part of the law of torts." Federal courts are forbidden under these cases' reasoning from implying rights Congress has not expressly legislated where there is a comprehensive regulatory scheme. Thus, the Superfund Act and RCRA taken together require courts "to conclude that, if federal common ever governed this type of activity, it has since been preempted by those statutes." *United States* v. *Price*, 523 F.Supp. 1055, 1069 (D.N.J. 1981); *cf*. *United States* v. *Kin-Buc, Inc*. 532 F.Supp. 699 (D.N.J. 1982) (Clean Air Act); *Connecticut* v. *Long Island Lighting Co*., No. CV 81-1136 (E.D.N.Y. Mar. 24, 1981) (Clean Air Act); *Pruitt* v. *Allied Chemical Corp*., 523 F.Supp. 975 (E.D.Va. 1981) (Clean Water Act); *Chesapeake Bay Foundation, Inc*., v. *Virginia State Water Bd*., 495 F.Supp. 1229 (E.D. Va. 1980).

Indeed, the legislative compromise establishing the Superfund Section 301(e) Study Group itself resulted in part from the decision to *delete* the "third party liability provisions" from S. 1480. Were the Act's savings clause authorization for courts to create an implied private right of action under the Superfund Act notwithstanding the deletion of these provisions, that deletion would have in fact been ineffective and the "compromise" meaningless. Congress *expressly addressed* the possibility of third party liability in considering S.1480 and expressly rejected such a remedy. Clearly, there is no room for a court to imply a right of action in such a context.

The letter of April 29, 1982, from Senators Stafford and Randolph to the Superfund 301(e) Study Group suggests, however, additional concerns. The first is whether Milwaukee v. Illinois, 451 U.S. 304 (1981), and Middlesex County Sewerage Authority v. National Sea Clammers Association, 453 U.S. 1 (1981) can [or should] be interpreted to mean that a federal comprehensive statutory scheme of regulation preempts the State common law of tort or nuisance or, indeed, State statutory rights of action. The second issue is whether courts interpreting State law might make an argument analogous to the Supreme Court's rationale in Milwaukee -- that State statutory law has supplanted State common law. A final issue raised is the constitutional power of the Congress to preempt State statutory or common law.

II. THE MILWAUKEE AND NATIONAL SEA CLAMMERS OPINIONS CANNOT BE USED TO ARGUE THAT STATE LAW HAS BEEN DISPLACED BY A COMPREHENSIVE STATUTORY SCHEME.

Senator Stafford has stated his concern about the effect of the Milwaukee decision upon State law on a number of occasions. E.g., Stafford to Press for CWA Change Restoring Common Law Rights in Lawsuits, INSIDE EPA 14 (Jan. 15, 1982). For example, the Senator explained on the Senate floor last December:

> Moreover, if Federal common law is to be displaced there is the unacceptable risk that State common law might be displaced as well. In fact, in a recent Massachusetts case--McMahon against Amoco Oil Co.--the State sued for contamination of ground water caused by waste oil. This was not covered by the Massachusetts water pollution control act, so the suit was based on State common law. The defendant, Amoco, raised as a defense the Milwaukee case, asserting that State common law had been displaced. This was rejected by the court, but illustrates the dangerous potential of the Milwaukee decision.

127 Cong. Rec. S15640 (daily ed. Dec. 16, 1981) (remarks of Sen. Stafford).

Senator Stafford went on to say,

> As I stated, [Milwaukee] is already being brought up as a defense to a suit based on State common law. . . I do not believe the Congress has yet addressed the issue of displacement, generally. There is, however, one recent law which explicitly addressed the problem. That is the superfund. And, I might note, it expressly preserved both Federal and State common law, even in cases of compliance with Federal permits under the Clean Water Act or other statutes.

127 Cong. Rec. S15641 (daily ed. Dec. 16, 1981) (emphasis added).

Senator Stafford need have no fear in this area. A simple reading of the Milwaukee case reveals clearly that the Supreme Court's view of State common law is entirely different from that of the problematic federal common law that has been displaced (to the extent it ever existed) by federal environmental statutes. In Milwaukee, Justice Rehnquist wrote:

> Federal courts, unlike state courts, are not general common law courts and do not possess a general power to develop and apply their own rules of decision . . . . When Congress has not spoken to a particular issue, however, and when there exists a "significant conflict between some federal policy

> or interest and the use of state law," the Court has found it necessary, in a "few and restricted" instances, to develop federal common law.

451 U.S. at 312 (emphasis added, citations omitted).

In a footnote, the Court noted:

> In this regard, we note the inconsistency in Illinois' argument and the decision of the District Court that both federal and state nuisance law apply to this case. If state law can be applied, there is no need for federal common law; if federal common law exists, it is because state law cannot be used.

451 U.S. at 313n.7.

The Court went on to distinguish explicitly the two "common law" situations:

> Contrary to the suggestions of respondents, the appropriate analysis in determining if federal statutory law governs a question previously the subject of federal common law is not the same as that employed in deciding if federal law pre-empts state law. In considering the latter question "we start with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress." While we have not hesitated to find pre-emption of state law, whether express or implied, when Congress has so indicated, or when enforcement of state regulations would impair "federal superintendence of the field," our analysis has included "due regard for the presuppositions of our embracing federal system, including the principle of diffusion of power not as a matter of doctrinaire localism but as a promoter of democracy." Such concerns are not implicated in the same fashion when the question is whether federal statutory or federal common law governs, and accordingly the same sort of a clear and manifest purpose is not required.

451 U.S. at 316 (emphasis added, citations omitted).

The Court further explained its strong distinction:

> Since the States are represented in Congress but not in the federal courts, the very concerns about

> displacing state law which counsel against pre-emption of state law in the absence of clear intent actually suggest a willingness to find congressional displacement of federal common law. Simply because the opinion in Illinois v. Milwaukee used the term "pre-emption," usually employed in determining if federal law displaces state law, is no reason to assume the analysis, used to decide the usual federal-state questions is appropriate here.

451 U.S. at 317n.9 (emphasis in original).

The Court reached its conclusion that Congress has supplanted federal common law with the words:

> The establishment of such a self-consciously comprehensive program by Congress. . . strongly suggests that there is no room for courts to attempt to improve on that program with federal common law.

451 U.S. at 319.

In a footnote to that very sentence, the court reiterated its important distinction between federal and State common law:

> Cases recognizing that the comprehensive character of a federal program is an insufficient basis to find pre-emption of state law are not in point, since we are considering which branch of the Federal Government is the source of federal law, not whether that law pre-empts state law. Since federal courts create federal common law only as a necessary expedient when problems requiring federal answers are not addressed by federal statutory law, the comprehensive character of a federal statute is quite relevant to the present question, while it would not be were the question whether state law, which of course does not depend upon the absence of an applicable act of Congress, still applied.

451 U.S. at 319n.14 (emphasis added, citations omitted).

Later the Court reiterated the distinction once again:

> It is one thing, however, to say that States may adopt more stringent limitations through state administrative processes, or even that States may establish such limitations through state nuisance

> law, and apply them to in-state discharges. It is quite another to say that the States may call upon federal courts to employ federal common law to establish more stringent standards applicable to out-of-state dischargers.

451 U.S. at 327-28 (emphasis in original).

The dissent in the Milwaukee case by Justice Blackmun also recognized that the majority opinion did not imply any preemption of State law. Blackmun thought the decision implied exactly the opposite:

> By eliminating the federal common law of nuisance in this area, the Court in effect is encouraging recourse to state law wherever the federal statutory scheme is perceived to offer inadequate protection against pollution from outside the State, either in its enforcement standards or in the remedies afforded. This recourse is now inevitable under a statutory scheme that accords a significant role to State as well as federal law . . . I fear that today's decision will lead States to turn to their own courts for statutory or common law assistance in filling the interstices of the federal statute.

451 U.S. at 353.

There is absolutely no basis whatsoever for the fear that the Milwaukee case could be construed to preempt State tort law.

The McMahon case Senator Stafford cites as illustrating "the dangerous potential of the Milwaukee decision" to displace State common law instead clearly demonstrates the lack of any basis for the Senator's fear:

> Milwaukee v. Illinois is particularly inapposite since its holding that the enactment of the Federal Water Pollution Control Act displaced earlier federal common law was compelled by a recognition that federal common law is merely a "necessary expedient" and "federal courts, unlike state courts, are not general common law courts and do not possess a general power to develop and apply their own rules of decision."

McMahon v. Amoco Oil Co., No. 36608 (Mass. Super. Ct., Suffolk Co., Jun. 24, 1981), slip. op., at 8-9 (citations omitted).

In Middlesex County Sewerage Authority v. National Sea Clammers Association, the other case cited by Senators Stafford and Randolph in their letter of April 29, the Court found it unnecessary to discuss the distinction between State and federal common law which had been made so clearly in the Milwaukee case. The respondents' one claim in that case based on State tort law had been dismissed without prejudice by the lower court apparently because summary judgment for the defendant was granted on all the federal claims to which the state claim was pendent. 453 U.S. at 5n.8. The petitions for certiorari to the Supreme Court raised questions concerning the applicability of state tort claims act and the Eleventh Amendment to tort suits in federal court, but the questions were not "within the scope of the questions on which review was granted." 453 U.S. at 8n.12. The possibility of justifying federal preemption of State common law based on the National Sea Clammers case is just as far fetched as that same possibility with respect to the Milwaukee case.

III. COURT INTERPRETATION OF STATE LAW IS BEYOND FEDERAL POWER TO REGULATE, AND COURTS MAY HOLD THAT A STATE STATUTE HAS DISPLACED COMMON LAW.

The second additional issue raised in the April 29 inquiry of the Superfund Study Group is suggested obliquely by the Senators' comment, "[A]pplication of the Milwaukee decision to eliminate common law at the Federal level could give rise to arguments for eliminating common law at the State level." This issue is whether courts interpreting State law may develop a doctrine analogous to that expressed in the Milwaukee case and decide that State statutory law has supplanted State common law. In a fundamental sense, however, this is no concern of Congress since that body has no power to legislate or amend State statutory or common law, unless the Supreme Court unexpectedly rules otherwise in the pending FERC v. Mississippi case (No. 80-1749).

A memorandum from the Minnesota attorney general accurately summarizes this constitutional limitation on Congressional power in the context of a dispute which arose under the Clean Air Act:

> The issue of whether the federal government may require states to adopt specific legislation has been litigated in the last few years. Several cases developed out of the use of Transportation Control Plans developed by EPA pursuant to Clean Air Act's pre-1977 provisions. Professor Richard Stewart described the issue in an article entitled, "Pyramids of Sacrifice? Problems of Federalism in Mandating State Implementation of National Environmental Policy," 86 Yale L. Rev. 1196 (1977).
>
>> Under the Clean Air Act, the states have responsibility to adopt state implementation plans [prior to the 1977 amendments] (SIPS) for regions of the state to control pollution sources to the extent necessary to achieve federal ambient standards. If the EPA judges an SIP to be inadequate, it is required to disapprove the SIP; if the responsible state declines to revise the SIP so as to ensure achievement of federal ambient standards, the EPA is required to promulgate an adequate SIP for that region. Many states

> failed or refused to adopt SIPs with automobile emissions controls adequate to meet the federal ambient standards because the necessary restrictions on parking and automobile use were strenuously opposed by downtown merchants, commuters, and others dependent upon automobile use and access. There was also bitter resistance by developer interests to EPA efforts to secure state adoption of restrictions on new "indirect sources" of pollution, such as shopping centers, large parking facilities, sports complexes and highways, which would attract a heavy concentration of automobiles. As a result, the EPA was required in many instances to devise transportation control plans (TCPs) and indirect source controls for inclusions in state SIPs. This step was only the beginning of the EPA's troubles. State and local officials refused to enforce many of the agency's unpopular controls. . . . .Lacking the resources itself to impose sweeping restrictions on parking and automobile access in most of the nation's major cities, the EPA issued regulations requiring states either to adopt adequate transportation controls or to implement EPA drafted controls. The regulations provided that failure by state officials to implement TCPs would itself constitute a violation of the SIP, exposing the state to EPA enforcement orders and civil or criminal penalties. Several states sought judicial review challenging the regulations and denying their liability or civil sanctions for failure to submit to EPA demands. Three of the four courts of appeals that heard such cases denied, in whole or in part, the enforcement power asserted by the EPA against state officials. Adverting to grave constitutional problems that would be raised by congressional coercion of state officials to carry out federal programs, two courts construed the statute to avoid constitutional questions and found that Congress had not conferred the disputed enforcement powers. The third court found that enforcement authority had been granted by Congress, but held the authority to be in part unconstitutional.

> Id. 1203-05 (footnotes omitted).
>
> While not reaching the constitutional issue, the Third Circuit Court of Appeals stated that:
>
>> We have found no appellate case save one. . .which may be construed as holding that the nation may direct the legislature of a state to act, for it is one thing to strike down a state law under the supremacy clause, or to decide that a state which chooses to engage in activities which Congress has a right to control must do so on Congress' terms, or to hold that Congress may induce a state to act by offering favors or exacting financial penalties if it does not, but it is quite another thing to extract from a state a most fundamental attribute of its sovereignty.
>
> Maryland v. EPA, 530 F.2d 215 (4th Cir. 1975), vacated sub. nom. EPA v. Brown, 431 U.S. 99 (1976).

Memorandum from Leroy C. Paddock to Eldon Kaul, State of Minnesota Attorney General's Office, State Administration of Tier One, dated April 30, 1982.

Thus, the federal government is limited to inducements of legislative changes in state law.

It is difficult to perceive any legitimate federal interest whatsoever enabling it to induce or influence a court's interpretation of State law. Any such Congressional attempt would violate the Tenth Amendment to the United States Constitution under the National League of Cities [National League of Cities v. Usery, 426 U.S. 833 (1976)] interpretation. This is the reason that led us to question the constitutionality of some provisions of recent legislative proposals, e.g. the Federal Products Liability bills.

It is helpful to remember that the federal courts always have recognized that interpretations of State law by the State supreme courts are not subject to appeal to the federal courts and must be followed in the federal courts to the extent matters involving those interpretations arise in cases properly before them.

Notwithstanding our view that the Constitution puts matters of interpretation of State law beyond the reach of Congressional power to regulate, I have researched the substantive question asked by the two Senators. Under principles of statutory construction adhered to in virtually all of the States, it is clear that State statutes can and often do preempt previously extant State common law. As a general matter, the common law "prevails throughout the United States except where modified, changed, or repealed by statute or constitutional provision." 15A Am.Jur.2d Common Law § 13 (1976). When a statute and the common law conflict "the common law yields to the statute to the extent of the inconsistency, but where the legislative intent is shown to encompass an entire area, then that statute preempts the common law." Watkins v. State, 42 Md. 349, 400 A.2d 464, 467 (1979), cf. McMahon v. Amoco Oil Co., supra, at 9 ("a statute is not to be interpreted to displace a principle of common law absent a manifest legislative intention to reach that result or a direct inconsistency between the statute and the common law.").

State court inquiry primarily is focused on state legislative intent. In this respect, State courts' reasoning is quite similar to that evident in the Milwaukee and National Sea Clammers cases. State statutes which provide for a specific matter already covered by a common law rule but omit a portion of that rule can be interpreted to indicate a legislative intent to repeal those portions omitted. 73 Am.Jur.2d Statutes § 185 (1974). However, if a statute does not look to a common law rule in its entirety and merely touches upon portions of the rule, the remaining portions not considered are not repealed or abrogated. See Fabricius v. Montgomery Elevator Co., 254 Iowa 1319, 121 N.W.2d 361 (1963); Pennsylvania Mutual Life Insurance Co. v. Hunt, 237 Mass. 241, 129 N.E. 391 (1921); Tucson Gas & Electric v. Schantz, 5 Ariz.App. 511, 428 P.2d 686 (1967); State v. Barne 133 Neb. 676, 276 N.W. 676 (1937). A legislature may abrogate or change common law by statute without providing an adequate substitute. Magierowski v. Buckley 39 N.J.Super. 534, 121 A.2d 749 (1956).

Sands has summarized the principles courts use in deciding the common law displacement issue:

> [A statutory interpretation is favored which] preserves the rights or benefits enjoyed under the common law where the result avoids absurdity, retroactivity, unconstitutionality, is in keeping with good policy, is consistent with what is otherwise indicated to be the purpose of the legislation, or is evident from a consideration of the statute read as a whole and in conjuction with other related statutes.

3 SUTHERLAND STATUTORY CONSTRUCTION § 61.02 (Sands, 4th ed., 1972).

In recent times, there has been a tendency to construe remedial State statutes less strictly and thus to find that State statutes indicate a change in the policy of the law in derogation of the prior common law. 3 SUTHERLAND STATUTORY CONSTRUCTION § 61.03. Many States have adopted laws that seek to change courts' strict interpretations of statutes which displace the common law, but these laws generally are meant simply to eliminate bias toward either a liberal or strict construction. 3 SUTHERLAND STATUTORY CONSTRUCTION § 61.05.

IV. CONGRESSIONAL POWER TO PREEMPT STATE LAW, WHETHER STATUTORY OR COMMON LAW, IS LIMITED BY THE PRINCIPLES OF FEDERALISM EMBEDDED IN THE CONSTITUTION

A third issue raised by Senator Stafford's and Senator Randolph's letter, albeit indirectly, is whether there are constitutional limits to Congress' power to extinguish or supplant State law even if it decides to do so expressly. The question arises in the context of the Superfund Act because of its section 114(c) which purportedly preempts State taxation to some extent. This constitutional issue may eventually be raised in the context of the New Jersey Spill Compensation Fund controversy in that State's courts or in challenges to one of the other State Superfunds.

The incredibly complex jurisdictional aspects of the New Jersey controversy prevented Exxon and its co-plaintiffs from receiving a definitive ruling in any State or federal court on any of the substantive tax preemption issues raised by the simultaneous taxation of industry under both federal and New Jersey "Superfund" Acts until April 23, 1982. The New Jersey Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq. was enacted in 1977. The federal Superfund Act, 42 U.S.C. § 9601 et seq, was enacted in December 1980. Section 114(c) of the federal Act states that:

> Except as provided in this Act, no person may be required to contribute to any fund, the purpose of which is to pay compensation for claims for any costs of response or damages or claims which may be compensated under this title. Nothing in this section shall preclude any State from using general revenues for such a fund, or from imposing a tax or fee upon any persons or upon any substance in order to finance the purchase or prepositioning of hazardous substance response equipment or other preparations for the response to a release of hazardous substances which affects such State.

42 U.S.C § 9614(c) (emphasis added).

Exxon reads this section to mean that it "precludes the state of New Jersey from collecting from a person who is already paying into the Federal Superfund a tax, the purpose of which is to pay compensation for a response or claim which may be compensated under the Superfund Act." Exxon et al v. Hunt et al., No. 81-1458M, Amended Complaint, filed May 29, 1981 (D.N.J.), ¶ 20 HAZARDOUS WASTE LITIGATION REP. 1578, 1581 (Nov. 3, 1981). The State of New Jersey reads the provision far more narrowly such that "[t]he preemption language does not extend to cleanup costs which are not in fact compensated by Superfund." Exxon et al. v. Hunt et al., No. SC 303A-81, Brief and Appendix in Support of State Defendants' Motion for Summary Judgment, Oct. 30, 1981, at 23; HAZARDOUS WASTE LITIGATION REP. 1606, 1617 (Nov. 17, 1981). The statutory interpretation question is complicated by the fact that the federal Superfund bill which passed "had virtually no legislative history at all." Grad, A Legislative History of the Comprehensive Environmental Response, Compensation and Liability ("Superfund") Act of 1980, 8 COLUM.J.ENVIR.L. 1, 1 (1982). Self-serving colloquy and soliloquy by individual Senators and Congressmen are, as both plaintiff and defense lawyers are beginning to discover, much more ambiguous than usual legislative histories and, more important, less and less persuasive with the courts, whose sophistication as to how legislative history is grossly manipulated is growing rapidly.

On the preemption issue, New Jersey often cites its own Senator's colloquy with Senator Randolph:

> Bradley: And am I also correct in noting that State funds are preempted only for efforts which are in fact paid for by the Federal fund and that there would be no preemption for efforts which are eligible for Federal funds but for which there is no reimbursement?
>
> Randolph: That is correct.

126 Cong. Rec. S14981 (daily ed. Nov. 24, 1980).

On the other extreme, the chemical industry can point to Senator Helms' understanding of what had been done in section 114(c):

> In addition, I have long supported state participation in any superfund bill dealing with hazardous waste sites. This is both a Federal and State problem. States have benefited from an industrial location within their borders in salaries to employees, and in state taxes paid by the corporations--We have seen the sad results of turning to the Federal government to solve problems that could and should have been solved by local and state governments.
>
> In that regard, I note that the compromise bill has eliminated any state "superfund" by preempting any participation by the chemical industry . . .

126 Cong. Rec. S15004 (daily ed. Nov. 24, 1980).

Other solons' positions on the preemption section fall between these two extremes. For example, Congressman Florio stated that successful State spill funds could continue to use such funds to pay for damages not compensable under the Act and that Congress would not be preempting the States' collection of taxes or fees for other funds associated with releases. 126 Cong. Rec. H11788 (daily ed. Dec. 3, 1980); see Grad, supra, at 31.

The State of New Jersey was able to exploit this substantial ambiguity in the federal Act's scant legislative history to get its state tax court to adopt its preemption postion. That court was very careful, however, to clarify that even if the state fund had been preempted for some purposes by section 114(c), that did not mean that the tax had been preempted for all purposes. The length and detail of its opinion in this regard suggests the court's own uneasiness about its total adoption of the state's interpretation of section 114(c).

Exxon et al v. Hunt et al, No. SC 303A-81, SC 319A-81TC (N.J. Tax Ct., April 23, 1982, HAZARDOUS WASTE LIT. REP. 2470, 2481 (May 18, 1982). The court stated, "[E]ven if § 114(c) of super fund could be construed to preempt part of spill fund the aforementioned non-preempted areas are more than sufficient to sustain its continued validity." The State was also successful in convincing the Reagan Administration to accept New Jersey's position and thus to settle the lawsuit brought by New Jersey legislators against the federal government. Lesniak v. United States, Nos. 81-977, 81-1914 (D.N.J.), Stipulation of Settlement, HAZARDOUS WASTE LIT.REP. 2121 (Mar. 2, 1982). Therefore the State has not yet needed to raise the substantial constitutional issue which is [or would be] raised by a national government attempt to broadly extinguish a State tax source.

Congressional exercise of its interstate commerce power to limit State taxation prior to the Superfund Act had been extremely limited. For example, in the Airport Development Acceleration Act of 1971, 49 U.S.C. § 1513, which prohibits States from levying taxes on persons traveling in air commerce or on gross receipts derived from air commerce, Congress exempted property taxes, net income taxes, franchise taxes, sales or use taxes on the sale of goods and services, and airport control charges and loading fees from the prohibition. Similarly, in 1975, Congress prohibited States from taxing railroad property, but it prohibited only taxation which imposed a tax burden more heavily on such property than that imposed on other industrial or commercial property. 49 U.S.C. § 26c. The Tax Reform Act of 1976 prohibits States from levying a tax "with respect to the generation or transmission of electricity which discriminates against out-of-state manufacturers, producers, wholesalers, retailers or consumers of electricity." 15 U.S.C. § 391.

These three statutes reflect the circumspect way in which Congress typically had approached restriction of the States' taxing powers prior to the Superfund Act. Although Congress has broad authority to limit State regulatory authority when that authority affects interstate commerce, historically there has been a Congressional sense that the States' taxing power is special, warranting special caution in the invocation of its Commerce Clause powers. Even in the regulatory area, it is probable that the federal commerce power is also limited by principles of federalism. For example, the Court of Appeals for the District of Columbia has held in the context of the regulatory requirements under the Clean Air Act to which the Minnesota attorney general's memorandum referred:

> [T]the Administrator [of EPA], in the exercise of federal power based solely on the commerce clause, cannot against a state's wishes compel it to become involved in administering the details of the regulatory scheme promulgated by the Administrator. For example, the attempt to require the state to "establish" each of the retrofit programs and to "evaluate and approve devices for use in this program,". . . .is an impermissible encroachment on state sovereignty and goes beyond "regulation by Congress."

District of Columbia v. Train, 521 F.2d 971 (D.C. Cir. 1975), vacated sub. nom. EPA v. Brown, 431 U.S. 99 (1976).

In any event some areas of State power, such as the State taxing power, do appear to lie closer to the heart of state sovereignty than most regulatory areas. In *McCulloch* v. *Maryland*, the first Chief Justice wrote--

> That the power of taxation is one of vital importance; that it is retained by the states; that it is not abridged by the grant of similar power to the government of the Union; that it is to be concurrently exercised by two governments; [these] are truths which have never been denied.

17 U.S. (4 Wheat.) 316, 425 (1819).

Alexander Hamilton in *The Federalist* noted that the Constitution allowed the States to "retain an independent and uncontrollable authority to raise revenues to any extent of which they may stand in need by every kind of taxation except duties on imports and exports." THE FEDERALIST No. 33 (J. Cooke ed. 1961), at 258. Hamilton concluded that "a law abrogating or preventing the collection of a tax laid by the authority of a state [unless upon imports and exports] would not be the supreme law of the land but an usurpation of power, not granted by the Constitution." *Id*, at 208.

At some point, the Congressional commerce power reaches its limit at the State's sovereign taxing power. In *National League of Cities* v. *Usery*, 426 U.S. 833, 855 (1976), the Supreme Court stated:

> Congress may not exercise [its commerce power] . . . so as to force directly upon the States its choices as to how essential decisions regarding the conduct of integral governmental functions are to be made. We agree that such assertions, if included, would indeed . . . allow "the National Government [to] devour the essentials of state sovereignty."

The Tenth Amendment, Justice Rehnquist wrote, is "an express declaration" that "our federal system of government imposed definite limits upon the authority of Congress to regulate the activities of the States as States by means of the commerce power." Id., at 842.

In Hodel v. Virginia Surface Mining and Reclamation Ass'n, 452 U.S. 264 (1980), the Supreme Court reiterated the Court's three-part test for deciding whether congressional legislation is unconstitutional:

> First, there must be a showing that the challenged statute regulates the "States as States." . . . Second, the federal regulation must address matters that are indisputably "attributes of State sovereignty." . . . And, third, it must be apparent that the States' compliance with the federal law would directly impair their ability "to structure integral operations in areas of traditional functions."

452 U.S. at 287-288.

The power to tax generally is clearly an activity of the States as States, one of the "traditional governmental functions" which the Tenth Amendment protects against Congressional commerce power intrusions. As one recent commentator put it:

> [S]ince the economic viability of state government depends upon the power to tax, and because the taxing power is a legitimate function of the state as sovereign, state taxation should clearly qualify as a "traditional governmental function.

Parnell, Constitutional Considerations of Federal Control over the Sovereign Taxing Authority of the States, 28 CATH.U.L.REV. 227, 238 (1979).

This is not to say, of course, that a State tax affecting interstate commerce is immune from Commerce Clause related limitations. Even in the absence of a Congressional statute, a State tax may be evaluated constitutionally to determine whether it "is applied to an activity with a substantial nexus with the taxing State, is fairly apportioned, does not discriminate against interstate commerce, and is fairly related to services provided by the State." Complete Auto Transit, Inc. v. Brady, 430 U.S. 274, 279 (1977), quoted in Commonwealth Edison Co. et al. v. Montana, _____ U.S. _____, 101 S.Ct. 2946 (1981).

Nevertheless, State taxation probably does comport with the kind of activity relevant to the National League of Cities line of cases. See generally Light, State Severance Taxes Fuel Court Action and Congressional Debate, 11 PUBLIUS 85, 103-108 (1981). The constitutional issue then becomes whether compliance by a State with section 114(c) of the Superfund Act would directly impair that State's ability to structure integral operations in areas of traditional functions. The policy issues New Jersey raised to convince the New Jersey tax court that CERCLA section 114(c) should be construed narrowly could be constitutional issues. New Jersey argues:

> It is abundantly clear that the [federal Superfund scheme] will not even begin to cover more than a small fraction of the State's cleanup needs . . . [T]he [New Jersey] Fund has an obligation under State law to remedy problems in New Jersey caused by the discharge of hazardous substances into the environment. Shutting down this remedial capability . . . . simply does not make any sense. Moreover, if the [state] spill tax is preempted from being used to support response actions which in some chimerical sense are "eligible" for

> compensation under the Federal Act but not realistically in line for Federal dollars, New Jersey could be prevented from financing hazardous substance cleanups of local, but not national priority, out of the source declared by the State legislature to be the most equitable . . .

Exxon et al. v. Hunt, No. SC 303A-81, Brief in Support of State Defendants' Motion for Summary Judgment, supra, at 26-27, HAZARDOUS WASTE LITIGATION REP. at 1618-1619 (Nov. 17, 1981).

These complaints could rise to constitutional dimensions if a court holds that Congress actually intended to broadly preempt State taxation in Superfund section 114(c).

The practical importance of the tax preemption matter has become evident as the outlines of EPA's prospective cleanup program have developed over the past several months and as those outlines' implications for individual State cleanup efforts have become clear. Minnesota recently summarized that state's practical problem with the federal program for the Superfund 301(e) Study Group:

> The Minnesota Pollution Control Agency has listed 49 hazardous waste sites in Minnesota in need of clean up and emphasized that the list is growing. Five of these sites were included in the Environmental Protection Agency's initial list under § 105(8)(B) of the Superfund Act of the 115 highest priority hazardous waste sites. Based upon MPCA-EPA discussions and recently published EPA projections, it appears unlikely that more than 10% of Minnesota's currently identified hazardous waste sites will be cleaned up under the federal Superfund program through 1988.
>
> The EPA projections are found in a "[S]uperfund program evaluation and tracking system" report submitted to EPA Administrator Anne M. Gorsuch in December, 1981, by EPA's Office of Management Systems and Evaluation. 13 Env't Rep. (BNA) 1211 (January 22, 1982). As reported by BNA, the EPA evaluation document envisions that Superfund will provide clean up of less than 330 sites by the end of federal fiscal year 1987 (or less than 15% of the sites EPA recognizes as

> needing cleanup). The significance of the 330 sites estimate is drawn into question by an accompanying budget breakdown which shows that by the end of fiscal 1987 only 170 remedial actions will have been implemented at a total cost of $765 million. The difference between 330 sites and 170 remedial actions may reflect spill situations in which "immediate removals" will accomplish clean up, and no "remedial action" will be required. If the 170 inactive hazardous waste sites to undergo remedial action are evenly distributed among the states, Minnesota might have 3 or 4 of its approximately 50 inactive sites cleaned up by Superfund. The Minnesota Pollution Control Agency, which works closely with EPA on Superfund matters, believes clean up of 1 to 3 Minnesota sites is likely from Superfund.
>
> Achievement of even these modest estimates will require an increase in the present pace of EPA Superfund activity. The evaluation report cited above shows that 7 remedial actions are contemplated nationwide for fiscal 1982. Estimates for fiscal 1983 are all remedial actions. Although EPA cautions that low numbers in the early years of the Superfund program reflect the time needed for investigation, planning, and design, it should be noted that many of the sites on the Superfund list were known to or investigated by state environmental agencies prior to passage of the Superfund Act. Much more could have been accomplished to date by more vigorous implementation of the National Contingency Plan and other elements of the Superfund Act. The increased pace of remedial action projected in the EPA evaluation document would be welcomed by the states but would still leave close to 90% of the inactive hazardous waste sites in Minnesota and throughout the nation in need of clean up.

Memorandum from Steve Shakman to Eldon G. Kaul, State of Minnesota Attorney General's Office, Apr. 17, 1982 (footnotes omitted).

The New Jersey Superfund tax preemption controversy is only one symptom of the manifold intergovernmental difficulties that have been developing because of the federal Superfund Act. New Jersey's, Minnesota's, and other States' difficulties would be lessened as a practical policy, if not a legal, matter if the federal government's Superfund program actually was working to clean up abandoned hazardous waste dumps. Recent testimony before Congressional oversight committees and the experiences of the State administrators and executives coping with this problem have caused us to conclude, as the Minnesota attorney general has, that the federal Superfund program is not working. Disbursements from the Fund have been slow and subject to the same sort of political manuevering which categorized numerous other national programs in the sixties and seventies in which national administrators controlled the fund allocation process. See generally Wright, UNDERSTANDING INTERGOVERNMENTAL RELATIONS 43-78 (2d ed. 1982).

The wisdom of federal preemption in the financing of hazardous waste dump cleanups certainly is questionable in light of the experience of the last 15 months. It is wise that the Superfund 301(e) Study Group, as a result, has been examining modifications of the national Superfund approach in connection with its recommendations for an administrative system to compensate the victims of hazardous waste exposures.

Interestingly, the federal Superfund Act's intergovernmental aspects were a very controversial aspect of the debate over that Act in the House of Representatives during 1980. Congressman Stockman led the critics of this aspect of the legislation:

> We have an open-ended enabling state that makes EPA the czar, and I say this without hyperbole--makes EPA literally the czar over every hazardous waste site in the entire country, and that includes every landfill, every waste site, every junkyard, every leaching pit, every industrial lagoon on the back of an industrial

> property, every municipal dump, even every backyard rubbish pile that has been accummulated anywhere in the country . . . the EPA has plenary power, and there is absolutely no guidance as to where all these costly activities to clean up hazardous waste will be triggered.

46 Cong. Rec. H9439 (Sept. 23, 1980) (remarks of Congressman Stockman).

The House bill upon which Congressman Stockman was commenting (H.R. 7020) is similar in most aspects of its intergovernmental operation to the Act which passed. Essentially, that Act authorizes the President to undertake any "response measure consistent with the national contingency plan [which he] deems necessary to protect the public health or welfare or the environment." 42 U.S.C. § 9604(a)(1). However, it requires that the President consult with the State before taking action and obtain a State commitment for future maintenance of the remedial measures, a State assurance of the availability of a hazardous waste disposal facility if needed for the cleanup, and a State payment of ten percent of the cost of remedial action. 42 U.S.C. § 9604(c). The State role is that of order-taker, not that of a partner.

Congressman Stockman's proposed alternative to the broad delegation of authority to EPA evident in the Superfund proposals was a grant program for the states to provide money to clean up inactive waste sites, distributed mainly on the basis of a formula tied to population and industrial production. Congressman Florio, in defense of his H.R. 7020 and in opposition to Stockman's alternative, stated:

> EPA, under this proposal, would provide formula grants to states with approved plans, after we went through all of the time necessary to get those plans formed. . . . The arguments against the substitute are fairly obvious: Time and delay. Time is of the essence in many of these instances. The need is right now. I can point to some 397 sites . . . EPA is already involved and has identified some 397 specific sites that they are at work on. So we do not have the time to develop these programs . . . Many states, quite frankly, are not interested and are not capable of going forward and they do not want to. They want to defer to the Federal Government. . . .

When the Senate compromise S. 1480 reached the House in December, Congressman Dannemeyer briefly referred in floor debate to the defeated Stockman proposal:

> If there were no other way to attack the hazardous waste problem except through EPA, perhaps a case could still be made for this bill. After all, no one is arguing that the waste sites should not be cleaned up. But, to assume that only EPA can do the job, or do it best and quickest as this bill assumes, flies in the face of historical experience. Since when did a Federal regulatory agency ever move quickly on a problem, to wit RCRA, or solve it efficaciously, to wit--air and water pollution?. . . [I]t may be that state government would be able to handle the problem, which suggests that the block grant to states approach, as suggested by our distinguished colleague from Michigan (Mr. Stockman) would be preferable to this means.

Congressman Rudd also praised the Stockman alternative:

> A commendable alternative approach offered by the gentlemen from Michigan (Mr. Stockman) . . . would have provided a block grant to the states. By this method, the states would be able to set up procedures to deal with the hazardous waste sites within their individual borders according to the priorities they determine. . . .Rather, this bill will perpetuate a Washington based "solution" administered through the Environmental Protection Agency . . .

In light of the States' experience with the practical operation (or, more accurately, general paralysis) over the past 15 months, Congressman Stockman's block grant alternative to the Superfund intergovernmental aspects seems all the more worthy of investigation. Congressman Stockman's prophecy about delay in the Superfund allocation process has proved accurate. Congressman Florio's hope about getting on with the cleanup has been in vain.

Senators Stafford's and Randolph's concerns about federal preemption of State law in environmental protection are well-taken in this sense even if their specific concern with the Milwaukee and National Sea Clammers cases are less so. Perhaps these Senators might consider proposing a revision of the Superfund scheme toward the block grant or some other alternative approach to make disbursements from the "Superfund" in order to alleviate the paralysis presently existing in this preemptive national program. This might well coincide with the President's "new federalism" philosophy. Alternatively or in addition, the Congress could amend the Act to clarify Congressional intent with respect to preemption of State Superfunds.

This is not to say, of course, that Congressional power to induce the States indirectly to undertake an important activity of national priority such as hazardous waste cleanup is completely unlimited. Courts do not lightly infer a Congressional imposition "of binding obligations on the States" where simple "Congressional 'encouragement' of state programs" is likewise inferable. Pennhurst State School & Hospital v.

Halderman, 451 U.S. 1, 27 (1980). And, even the clear imposition as grant conditions of the adoption of a State law or the taking of any other action within a State's prerogatives would not necessarily provide any private party with a federal cause of action were the State then not to comply with an accepted grant condition:

> In legislation enacted pursuant to the spending power, the typical remedy for state noncompliance with federally imposed conditions is not a private cause of action for noncompliance but rather action by the Federal Government to terminate funds to the state.

451 U.S. at 28.

One recent law review note states:

> Only a requirement that states make all decisions on matters falling within exclusive state powers free from all influence of national grants provides a workable standard for preserving the values of Federalism.

Note, Taking Federalism Seriously: Limiting State Acceptance of National Grants , 90 YALE L.J. 1694, 1712 (1981).

While the Supreme Court has not yet adopted this constitutional requirement of "uninfluenced decisionmaking" for national grant programs, the trend may be in this direction. See Stewart, Pyramids of Sacrifice? Problems of Federalism in Mandating State Implementation of National Environmental Policy, 86 YALE L.J. 1196, 1261-1262 (1977); Comment, Toward New Safeguards on Conditional Spending: Implications of National League of Cities v. Usery, 26 AM.U.L.REV. 726, 744-46 (1977; but see Comment, Federal Interference with Checks and Balances in State Government: A Constitutional Limit on the Spending Power, 128 U.PA.L.REV. 402, 417 (1979).

Nevertheless, a grants or other "incentives" approach to recruiting the States into a hazardous waste cleanup effort clearly is more likely to withstand constitutional scrutiny than the direct coercion/preemption approach. If State tax sources and by implication State waste cleanup programs have been preempted by section 114(c), the practical import may be that nothing will be done in the near future to clean up abandoned hazardous waste sites except for those cleanups undertaken with private financing. The Study Group may wish to bring this problem to the attention of Congress in its report.

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